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GEOGRAPHY OF COAST LINES.

THE GEOGRAPHY
OF
COAST LINES.

BY
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Fifth Edition.

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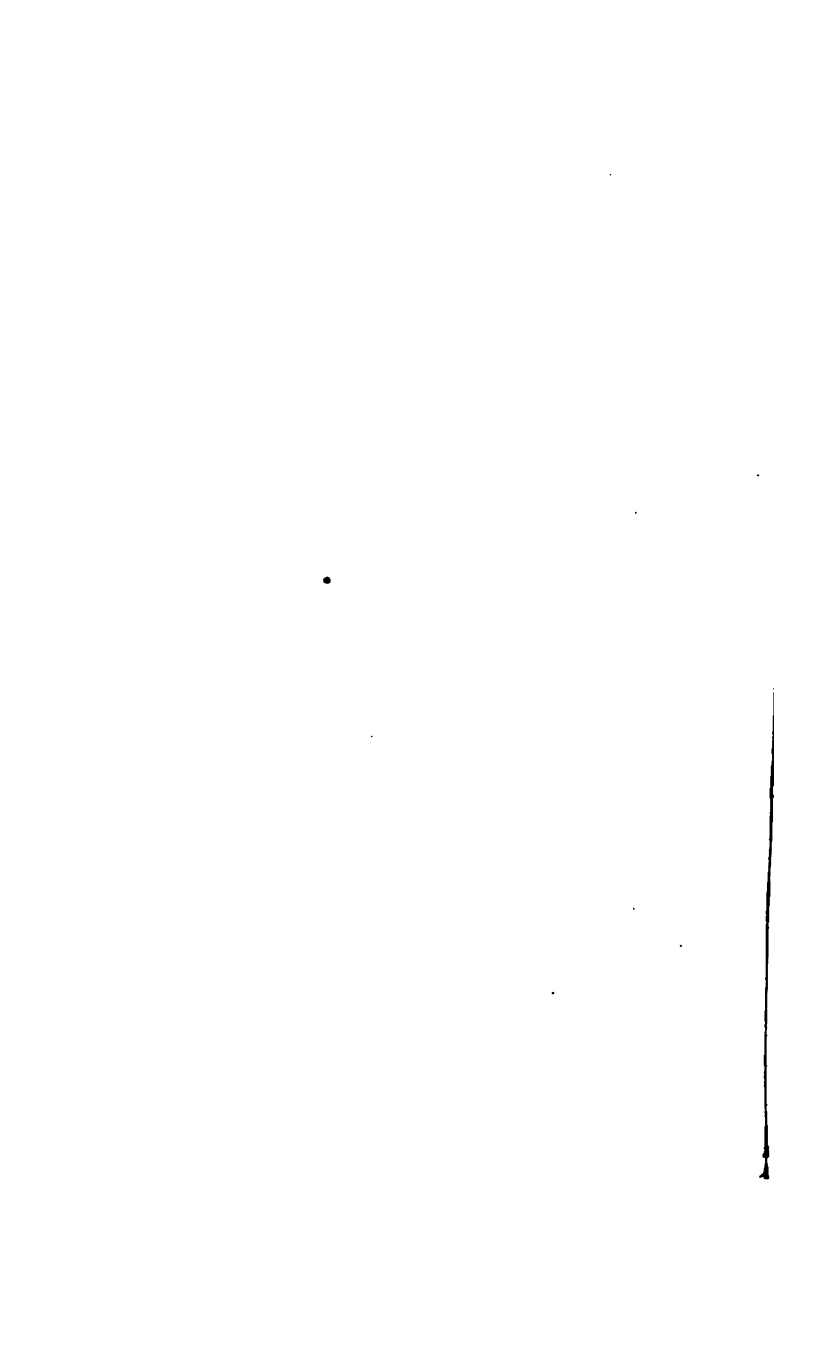
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PREFACE

TO THE FIFTH EDITION.

IN bringing out a fifth edition of this little work, the author has taken the opportunity, thus afforded, of revising the whole. Several parts have been rewritten; others have been corrected, and in many places new matter has been added. It is hoped that it will thus be made more worthy of the favour with which it has been so generally received. For the sake of those who may wish to follow up the subjects, which are of necessity but briefly dwelt upon in the following pages, it may be mentioned that the chief works consulted in the compilation of the "Coast Lines," are M'Culloch's "Dictionary of Geography," M'Culloch's "British Empire," Blackie's "Imperial Gazetteer," Maunder's "Treasury of Geography," edited by W. Hughes, Esq., Mrs Somerville's "Physical Geography," Cornwell's "Geography," and Guyot's "Earth and Man."

DURHAM, *Feb.*, 1865.



THE GEOGRAPHY OF COAST LINES.

INTRODUCTION.

IN studying the geography of a country, three points should particularly engage our attention—the position, contour, and surface; these points being determined, we could almost deduct the rest from them. The position—that is, the latitude and longitude—would help us in determining the temperature; the contour and surface would still further help us. Upon the outline or contour would depend whether the temperature was equable or subject to extremes, whether dry or humid. The surface also considerably affects the temperature, since an elevation of 350 feet makes a difference of 1 degree Fahrenheit. Having thus determined the temperature, we may infer, in some measure, the quantity of rain that would fall, and this fact, taken in connexion with the surface and contour, will help us in discovering the probable size and direction of the rivers. The surface would also assist us in determining the soil and minerals. From the soil, climate, and rivers we might infer the productions, vegetable and animal, and thus the whole physical geography.

Having determined the productions, contour, rivers, and climate, we might next consider the character of the inhabitants, whether pastoral, agricultural, or manufacturing. On the character of the people, the size of the rivers, and the facilities for commerce, depend the trade, the imports and exports, and large towns.

Of course it is not pretended that we could determine *accurately* the geography of any country from the data before mentioned, but the general features we could determine ; and, to say the least, that which we do learn from books would make a much deeper impression, if we could thus see the connexion one thing has with another, and trace everything, as far as possible, up to the points with which we began.

These few remarks may perhaps lead some to look from a new point of view in studying this subject, and may be of assistance to them in drawing up notes on geography. At present, however, we intend, more particularly, to study the contours, or *coast lines* of countries, and to remark occasionally on the great influence they exert in physical and political geography. Due attention has not, we think, been given to this particular branch of geography, and some of the reasons why we consider the studying of coast lines so important, we shall now mention :—

1. As we have before remarked, upon the extent of coast line depends the character of the climate,—whether it is extreme or temperate, moist or dry.

2. Upon the length and *character* of the coast depend the facilities for commerce ; hence the commercial advantages enjoyed by Great Britain. We may here notice also the importance of considering the relative position of countries. The eastern and southern shores of England rose into commercial importance long before the western coast, because they were better situated with respect to the countries of Europe.

3. The extent of coast has an effect upon the character of the inhabitants. Deeply-indented shores, like the diversity of internal structure in a country, produce differences of local character in a people. The diversity of character among the Greeks, and the generous rivalry between the different states, depended upon the articulation of the shores of Greece, as well as upon the character of the surface. Again, who does not see that from the articulation of the shores of Europe we have the number of countries into which it is divided ? Each country has

a separate people for its inhabitants; hence that national rivalry and mental activity which have raised Europe above the other continents. Contrast Europe with Africa, and the importance of studying coast lines becomes apparent.

4. The study of coast lines also becomes of importance in considering the political condition of a country, as a great extent of sea-board may either be a source of strength or weakness. Viewing the subject in this light, the presence of naval ports becomes a point of interest, and especially such gigantic works as those of Cronstadt and Cherbourg.

5. A careful study of the coast gives us some notion of the interior, by noticing the imports and exports. In many instances I have endeavoured to illustrate this by mentioning the principal imports and exports. For examples I refer to the coast line of the United States of America.

6. The shores of a country become important when studying historical geography. When nations *act* upon each other, the shores are generally the first points of contact. This is especially the case in Europe, owing to the extent of coast line. Hence the geography of coast lines is full of historical interest.

Lastly, Another reason for studying coast lines, and one which becomes of practical importance to schoolmasters, is, that this study makes our knowledge of the relative position and form of countries *accurate*. It has always been felt that to get up the capes and bays of any country, or to teach them to a class, is dry work; yet we feel they must be taught, since they help to fix in the memory the form and outline of the country. Now, in the succeeding pages I have endeavoured to take away this dryness; and, while including every fact of any importance, have, at the same time, attempted to make the study of the coast at least as interesting as any other branch of geography.

I may here remark that the matter in the following pages is much condensed, as it is intended for a text-book rather than a reading book. Much has been left to the student's own research, as it was not desirable to

make this a large book. Yet I trust the facts have sufficient clothing to make them interesting. I strongly recommend that in reading the descriptions, the student should always have his atlas before him ; let him find out each place as it occurs, and endeavour to picture out to himself what he reads.

The contents of these pages were given to students preparing for the Government examination ; they are now offered to others who may be similarly engaged ; at the same time I trust they will be acceptable to all engaged in this interesting study, and that they will not only afford useful information, but convey it in an agreeable form.

Since this book was first published, many masters have used it as a text-book with their pupil teachers, and others have even introduced it into the upper classes of their schools. To such I would suggest that the *general* character of the coast might be given along with the *physical* geography of a country ; and when the *political* geography has been gone over, then the *particulars* of the coast line might be given in the form of an imaginary voyage ; and the teacher might here test his pupils' knowledge by requiring them, in some cases, to mention the imports and exports, or, in cases where these are given, he might ask for the particular localities which produce the exports or take the imports.

COAST OF GREAT BRITAIN.

I.—GENERAL CHARACTER.

COMMENCING at Cape Wrath, in the north of Scotland, the coast runs eastward to Duncansbay Head, and is bold and rocky; turning south-west this rocky character continues to the Ord of Caithness. Then round Dornoch, Cromarty, and Moray Firths, the shores are low and sandy; but from Burgh Head eastward to Kinnaird's Head, and as far south as Arbroath, the coast, though in some places sandy, is mostly bold and rugged. From Buchanness to the Firth of Tay there is scarcely a good harbour. The shores of the peninsula of Fife are mostly rocky, though not high. The coast round the Firth of Forth is of great beauty—"in part rocky, in part a pleasant beach."

Then as far as St Abb's Head the coast is generally low, but it there assumes a bolder character, which is preserved as far south as Flamborough Head: this part of the coast line is not much indented. The coast again becomes low, and this is especially the case from the Humber round the Wash to Hunstanton Cliff. We next have chalk cliffs as far as Lowestoft; then cliffs of clay and gravel. The shores of Essex are low, especially near the Thames. In Kent, chalk cliffs again appear until we arrive at the South Foreland.

The coast now inclines to the south-west as far as Beachy Head, and is low and marshy: a large curve of chalk cliffs then brings us to Selsea Bill, when the shore

becomes low and much indented as far as Purbeck Isle. From this point to Weymouth we again have cliffs of chalk. From Weymouth to Lyme Regis the shore is again low, but it then assumes a bolder character, and continues rugged and rocky to Land's End.

From Land's End to Minehead, the direction is north-east, and the coast consists of cliffs of sandstone, limestone, and granite. Round Bristol Channel it is low; but the coast of Wales is, in general, rocky as far as Great Ormes Head. The coast then becomes low, and continues so as far as Morecambe Bay. The shores of Cumberland assume a bolder character; but those lining the Solway Firth are again low and marshy.

From the Mull of Galloway the coast curves to the mouth of the Clyde, and is of a bolder character. The long peninsula of Cantire here stretches south, passing which, the coast trends north to Loch Linnhe, and is again low. From this point there is an irregular curve to Cape Wrath. This portion of the coast is dreary and rugged, deeply indented and skirted with islands.

It will thus be seen that upon the whole the west coast of Great Britain is more rocky and indented than the east. The extent of coast line is considerable—in England it amounts to 2000 miles, in Scotland to 2500 miles. Hence the character of the climate is moist and temperate, not being subject to extremes of heat and cold. The number and excellence of the harbours found on different parts of the coast present great facilities for commerce. We shall now examine the coast line more in detail.

II.—PARTICULARS.

1.—FROM CAPE WRATH TO BERWICK.

Cape Wrath is composed of magnificent cliffs from 300 to 500 feet high. Passing Loch Eriboll and the Kyle of Tongue we come to *Thurso*, which has a good harbour. Rounding Dunnet Head we come to **Duncansbay Head**,

which is crowned with a lofty lighthouse; about a mile to the west of this headland are the ruins of John o'Groat's house. The tides are very violent in the Pentland Firth; they sometimes run nine miles an hour. Turning south we come to *Wick*, the chief station for the herring-fishery. Passing *Dornoch* and *Tain* and rounding *Tarbetness*, we come to *Cromarty*, a neat and thriving town, and the birth-place of Hugh Miller. The Firth of Cromarty is the finest harbour on the east coast of Great Britain. *Dingwall* stands at the head of this inlet. Entering Loch Beauley we come to *Inverness*, a well-built and thriving town. In the sixth century it was the capital of the Pictish kingdom. To the east is Culloden Moor, where the Pretender was defeated, 1746.

Now passing *Nairn*, rounding **Burgh Head**, and continuing east, we come to *Fraserburgh*, a thriving fishing station. A little further south is *Peterhead*, the second port in Great Britain for the whale-fishery. Near **Buchanness** are the famous arched rocks, called the Bullers of Buchan. *Aberdeen* is the third town in Scotland, and has extensive manufactures and commerce; in the neighbourhood are fine quarries of granite. Continuing south, we pass the small village of *Finnan*,—noted for its haddocks,—and come to Montrose. *Montrose* and *Arbroath* are both engaged in the linen manufacture. *Dundee*, on the Firth of Tay, is noted for the coarser kind of linen goods: the raw material comes chiefly from the Baltic and the East Indies. About twelve miles east from the entrance to the Firth, is the **Bell Rock**, upon which a magnificent lighthouse has been erected. King James VI. of Scotland was wont to compare his "kingdom of Fife" to an old gray garment with a golden fringe, thus contrasting the wildness of the interior with the flourishing cities round the coast. Many of those cities, however, have now sunk into decay. *St Andrews* is the most fashionable town in the county, and possesses a university. Rounding **Fife Ness**, we enter the Firth of Forth. *Kirkcaldy* was the birthplace of Adam Smith. *Kinghorn* is the place where Alexander III. met his death, his horse leaping over a precipice, (1285.) Crossing to *Queensferry*, which was named after

Margaret, queen of Malcolm Canmore, we turn eastward to *Leith*. This port has considerable trade with the Baltic, though it has a powerful rival in *Granton*, which lies about two miles to the west. **EDINBURGH**, to which Leith is an outport, is noted for its university, its old castle, and the palace of Holyrood. The population is about 168,000. Leaving Leith, and continuing our course eastward, we pass *Portobello*, a favourite bathing-place, and *Musselburgh*, near which was the battle of Pinkie in 1547. We next come to *Prestonpans*, with its salt manufactures: here the young Pretender won a battle in 1745. Passing *North Berwick* we come to the **Bass Rock**. This rock is of a conical form, and rises out of the sea to the height of 400 feet; it is inaccessible except towards the south. A castle formerly stood upon it, which was afterwards converted into a state prison. In the time of Charles II. it was used as a place of confinement for the Covenanters. It was the last place in Britain that held out against William III. *Dunbar* is famous for the battles fought there in 1296 and 1650. The coast from the Firth of Forth trends south-east to Berwick. This place depends principally on its fisheries, and the exports are chiefly salmon, coal, corn, and wool; the imports timber, iron, hemp, and tallow.

2.—EAST COAST OF ENGLAND.

From *Berwick* a sweep of sandy shore stretches southward as far as *Bamborough Castle*, which stands upon a bold cliff, and was, during the Heptarchy, a royal residence. Opposite the castle are the *Fern Isles*, and a little to the north of them is *Holy Island*, once the seat of a famous monastery. Passing *Coquet Island*, and the mouths of the Wansbeck and Blyth, we reach the *Tyne-mouth*, at the mouth of the Tyne. *Newcastle* is a great coal port, and possesses also important manufactures of glass, machinery, and chemical products. *North and South Shields* have considerable trade. *Sunderland*, at the mouth of the Wear, ranks next to Newcastle as a coal port, and

is also noted for its shipbuilding. *Bishopwearmouth*, a suburb, is on the same side of the river; and *Monkwearmouth*, on the north bank, is connected with it by a large cast-iron bridge. *Hartlepool*, on the north side of the estuary of the Tees, is a thriving place. *Stockton*, at the mouth of the same river, has also considerable trade with the Baltic; and *Middlesborough* is the centre of a flourishing iron district.

The coast now trends south-east to *Whitby*, but is destitute of any good harbours. *Whitby* itself is noted for its alum-works; and a neighbouring village was the birth-place of Captain Cook. *Scarborough* is a fashionable bathing-place. **Flamborough Head** is the most conspicuous headland on the east coast. On the south side is the spacious harbour of *Bridlington Bay*. A new line of coast now stretches southward to **Spurn Head**, and entering the Humber we arrive at *Hull*. This is now, perhaps, the third port in England, and trades with the Baltic and Mediterranean; it is the outlet for the counties drained by the Ouse and the Trent, and exports cotton and woollen goods, earthenware and hardware; the chief imports are wool, hemp, flax, and timber. Great changes have taken place on this part of the coast: the port of *Grimsby* was, until recently, choked up with sand, while in other parts the sea has gained on the land, and the remains of a forest are said to be still visible under the waves. *Boston*, near the mouth of the Witham, has considerable trade with London and the Baltic. On the top of its parish church, which is 300 feet high, is a lantern which serves as a lighthouse, and is seen forty miles off at sea. Rounding the Wash, and passing *Lynn Regis* and *Castle Rising*, we come to **Hunstanton Cliff**, which terminates the chalk range called the East Anglian heights. Proceeding east we come to *Cromer*, a fishing town and bathing-place. The sea has made great inroads here; the site of the old town is covered with water.

The coast now curves round to the estuary of the Thames, and in some parts is much indented. At *Lowestoft* and *Yarmouth* the land has gained on the sea. In the thirteenth and fourteenth centuries, *Norwich* is repre-

sented as situated on an arm of the sea. On the other hand, the ground upon which *Yarmouth* stands was neither firm nor habitable previous to the Conquest. *Yarmouth* is the great centre of the English herring-fishery, and herrings and other fish are sent to London, the Mediterranean, and to the West Indies.

Lowestoft Ness is the most easterly point in England. The village of *Dunwich* was once an important seaport, but the sea has gradually gained upon it. *Ipswich* is noted as the birthplace of Wolsey. *Harwich* is one of the best ports on the east coast, and was at one time the packet station to the north of Europe; its trade is reviving. Passing the Naze we enter the mouth of the Thames. Glancing at *Tilbury Fort*, famous in the days of Queen Elizabeth, we arrive at LONDON. The Thames is here 1000 feet wide, and is crossed by seven bridges. London is the largest and richest city in the world: it possesses important manufactures, and has extensive commerce. In the east, at Spitalfields, silkweaving is carried on; tanning gives employment to many in Southwark; while at Clerkenwell, in the north, we have the manufacture of timepieces and watches. In the extent of its foreign trade London is surpassed by Liverpool, and perhaps by New York, but its enormous coasting trade renders it the first port in the world, as regards the number of vessels and the amount of tonnage frequenting it.

Returning along the south bank of the Thames we pass *Greenwich*, with its hospital and observatory; *Woolwich*, with its naval arsenal, artillery park, and military school; *Gravesend*, with its crowd of visitors,—and come to *Sheerness*. This fort was built after the Dutch had entered the Medway, (1667.) Its strength is sufficient to defy any similar attempt in the future. *Margate* and *Ramsgate* are much frequented as bathing-places. At Margate 90,000 persons have been landed from the steamboats in one year. When the Romans held England, Thanet was a complete island, as the two branches of the Stour which divide it from Kent were from one to four miles wide, and indeed these channels formed the ordinary route to London for ships coming from the south. As late as the

fifteenth century it was usual for boats to pass to and fro, but gradually sand accumulated, dykes were formed to keep back the tide, and Thanet is now scarcely a peninsula.

Passing *Sandwich* we come to *Deal*, a town of boatmen and pilots, who are mainly dependent for subsistence on the resort of shipping to the **Downs**: this famous roadstead lies between the shore and **Goodwin Sands**; it is tolerably safe, and frequently as many as 500 sail take refuge at one time. *Walmer Castle* is about half-a-mile from the town. *Dover* is a busy thriving town. Its chief dependence is on summer visitors, and on the passenger traffic to and from Calais and Ostend.

3.—SOUTH COAST OF ENGLAND.

Sandwich, Dover, Hythe, New Romney, and Hastings were the original Cinque Ports. They were established by the Conqueror, and had to furnish fifty-seven ships, in return for which certain privileges were granted them. The wardenship of the Cinque Ports is now a sinecure. *Folkestone* was the birthplace of Dr Harvey, (1578.) *Hastings* is a neat town and favourite bathing-place; the battle of Hastings took place about eight miles distant, (1066.) *Brighton* is a beautiful town, brought into note by George IV. *Shoreham* is the place where Charles II. embarked for France after the battle of Worcester, (1651.) Passing *Selsea Bill*, we come to **Spithead**, the safest roadstead in England; it is formed by a sandbank called the Spit; between which and the mainland the channel is so safe for ships that sailors call it the King's Bedchamber.

Portsmouth, on Portsea Island, is the first naval station in England; its dockyard covers an area of 100 acres; its fortifications are superior to any other in the kingdom. *Southampton* is a handsome and prosperous town, and a packet station to the West Indies, Lisbon, and Alexandria. It is also the principal station of the steamers for Havre, Dieppe, and other French ports; since by setting off from Southampton the difficult navigation from the North Foreland round by Dover and Beachy Head is avoided.

The **Isle of Wight** has been called, because of its fertility, the Garden of England. It terminates towards the west in a bold cape, called the Needles, on the top of which is a lighthouse 444 feet above the level of the sea. The channel on the north-west of the Isle of Wight is called the **Solent**; and near its southern extremity it is much narrowed by a low tongue of land which projects in a south-easterly direction from the mainland, and upon the extremity of which stands *Hurst Castle*. The coast now curves round to Poole Harbour, which is a large basin enclosing several islands. *Poole* sends considerable quantities of clay to the Staffordshire potteries. Immediately south of Poole Harbour is the so-called **Purbeck Island**, celebrated for its quarries of limestone, which takes a beautiful polish, and is known as Purbeck marble. The most southern point of this peninsula is **St Alban's Head**; and thence the coast runs westward to *Weymouth*. We now meet with a curious tongue of land which runs almost parallel with the shore for a distance of nine or ten miles. It is known as **Chesil Bank**, and at the extremity is **Portland Isle**, which again terminates in Portland Bill. Portland Isle supplies excellent building stone.

From Portland Bill the coast sweeps round to **Start Point**. In this curve we meet with *Lyme Regis*, where Monmouth landed in 1685; and *Torbay*, where William of Orange landed three years later. On the north side of Torbay is *Torquay*, a well-known watering-place. To the south is *Dartmouth*. Passing it, and rounding Start Point, we come to *Plymouth*. This is the second naval station in England. Its gigantic breakwater, which is a mile in length, cost £1,200,000. Nearly opposite Plymouth Sound is the famous **Eddystone Lighthouse**: the present edifice, built by Smeaton, was finished in 1759. The next place of importance is *Falmouth*. It has an excellent harbour, and is a packet station to the West Indies, America, and the Mediterranean. *Truro* is noted for the export of tin. Mount Bay takes its name from **St Michael's Mount**, which is situated in it. This is a rock of conical form, on the top of which is a chapel; it was long regarded as

a place of peculiar sanctity. *Penzance* is the most western town in England; the climate is mild, the myrtle growing in the open air: it is much resorted to by invalids. Off the coast is an important pilchard-fishery. This fishery, which is confined to the coasts of Devon and Cornwall, employs about 1000 boats, manned by 3500 men, besides about 5000 more persons engaged upon land: 30,000 hogs-heads are exported annually, most of which is sent to the Mediterranean.

4.—WEST COAST OF ENGLAND.

Leaving **Land's End**, and following the coast, we round **Hartland Point**, and enter **Bideford Bay**. *Bideford* has a considerable trade, and imports timber from Canada and the Baltic. Leaving **Lundy Isle** to our left, we sail up the **Bristol Channel**. *Bristol*, at one time the second port in England, is now perhaps the fourth: it trades largely with Ireland, and its foreign commerce is considerable. It has some important manufactures of glass, sugar, and brass. Among distinguished natives of Bristol may be mentioned **Sebastian Cabot**, **Chatterton**, and **Southey**. *Berkeley*, on the Severn, was the birthplace of **Dr Jenner**; and the old castle, in which **Edward II.** was murdered, is still in complete repair. *Chepstow* is a neat and flourishing town, amidst beautiful scenery. *Newport* is the chief outlet for the coal and iron of the county. Further west is *Cardiff*, the chief port for minerals in South Wales. **Robert of Normandy** was confined in its castle for nearly thirty years. The coast now curves round to **Swansea Bay**. *Swansea* has large works in coal, iron, and copper. Almost all the copper ore obtained in the British Islands, as well as considerable quantities from **Cuba**, **Australia**, and **South America**, is brought here to be smelted. Now passing **Caermarthen Bay**, and rounding **St Gwen's Head**, we enter **Milford Haven**, upon the shore of which stands *Pembroke*. *Milford Haven* is one of the finest harbours in Britain; the water is deep and anchorage good. The entrance is about a mile and a half wide. The barrenness of the surrounding country, as in the case of

Cromarty Firth, will probably prevent it from being of much commercial importance. It was here that Henry VII. landed in 1485.

Passing St Bride's Bay, and rounding **St David's Head** and Strumble Head, we come to *Fishguard*, where the French landed, (1798.) The coast here forms a large concave curve, in which we find *Cardigan*, *Aberystwith*, *Barmouth*, and *Harlech*. Aberystwith is a gay bathing-place. Barmouth, from its position, has been termed "a mimic Gibraltar on a mimic Mediterranean." Harlech has the remains of a strong castle built by Edward I. Doubling **Bardsey Point**, we enter Caernarvon Bay. The small island of Bardsey has a population of about ninety. It is said to owe its name to its having formed a refuge for the last Welsh bards or minstrels. *Caernarvon* is the largest town in North Wales; the castle was built by Edward I., and in one of its chambers the first Prince of Wales was born.

We have now entered the **Menai Strait**. This strait, which divides the county of Caernarvon from the Isle of Anglesea, is about fourteen miles long, and from two miles to 200 yards wide. It is now spanned by two magnificent bridges—the suspension and tubular bridges. The suspension bridge has seven stone arches, each fifty-two feet in span; and the length of the chain part is 579 feet. The tubular bridge consists of two lines of tubes of wrought iron, each 1513 feet in length—one for railway carriages going to, and the other for those returning from, Holyhead. *Holyhead* stands on a peninsula on the west coast of Anglesea; it is a packet station to Dublin. *Bangor*, near the bridges already mentioned, is beautifully situated in a romantic vale. Continuing north-east we come to *Conway*, with its fine old castle.

Now rounding **Great Ormes Head**, we continue eastward until we arrive at the mouth of the Dee. Sailing up the estuary we come to *Holywell*, with its copper and lead mines. The well of St Winifred, from which the town receives its name, is a large spring producing eighty-four hogsheads per minute. Glancing at *Chester*, with its old walls and covered walks, we leave the mouth of the Dee and

enter that of the Mersey. In the value of its foreign exports, and the extent of its foreign trade, *Liverpool* is now the greatest port in the British empire, and perhaps the first port in the world. Being the principal outlet for Lancashire, Cheshire, Yorkshire, Staffordshire, and Warwickshire, it exports textile fabrics, salt, iron, hardware, and earthenware. It is also a great port for emigration. As a packet station, it is second only to London. *Birkenhead*, on the opposite side of the Mersey, is a thriving place with magnificent docks. Continuing north we pass *Preston*, near the mouth of the Ribble, the handsomest of the cotton towns. *Fleetwood* is a well-built modern seaport and bathing-place, and has regular steam communication with the Lake District, the Isle of Man, and Glasgow. *Lancaster* is a decayed town: its fine old castle has been converted into the county courts and prison. *Ulverston*, the chief port of the Furness district, exports iron-ore, limestone, and slates. Now leaving the Isle of Walney, and rounding **St Bee's Head**, on which stands a lighthouse, we come to Whitehaven, which is supposed to have received its name from the white cliffs which lie on one side of its port. It exports coal to Ireland. *Workington* and *Maryport* have also considerable trade in coal and iron.

5.—WEST COAST OF SCOTLAND.

Skirting the low shores of the Solway, we come to *Annan*; a little to the west of which is *Dumfries*, one of the handsomest towns in Scotland. It has some trade with America and the Baltic; and its weekly cattle fairs have long been celebrated. It was in a convent at Dumfries that Comyn was slain by Bruce, (1306;) and here Burns spent the last few years of his life: a fine mausoleum has been erected to his memory.

Turning south-west, we come to *Kirkcudbright*, a pretty little town; to the east is Dundrennan Abbey, where Mary Queen of Scots passed her last night in Scotland. Sailing up Wigton Bay, we come to *Creeton*, which has important quarries of granite in the neighbourhood. Passing *Luca*

Bay, and rounding the **Mull of Galloway**, we come to *Port-Patrick*, a packet station to Ireland ; it imports cattle also from that country. Passing *Loch Ryan*, we come to *Girvan*, leaving **Ailsa Craig** to our left. This islet consists of a mass of rock 1100 feet high, and is a great resort for Solan geese.

From *Girvan*, northwards, the coast of *Ayr* is mostly low and sandy. The town of *Ayr* is situated at the mouth of a river of the same name ; a mile and a half to the south is the cottage where Burns was born. Leaving *Ayr*, we pass *Troon*, *Irvine*, *Saltcoats*, and *Ardrossan*, small ports which export coals to Ireland. *Saltcoats*, as the name implies, has a manufacture of salt. *Ardrossan* is a bathing-place. A little further north is *Largs*, memorable for the battle fought between Alexander III. and Haco, King of Norway, (1263.) Now entering the *Clyde*, we pass *Greenock*, the birthplace of James Watt. Sugar-refining is here carried on to a great extent. A little further up the estuary is *Port-Glasgow*, and on the opposite shore is *Dumbarton*. The navigation of the *Clyde* has been much improved of late years, so that vessels of a thousand tons burden can now reach *Glasgow*. This city has extensive manufactures in cotton and iron ; and the chemical works at *St Rollox*, in the north-east part of *Glasgow*, are the most extensive in Europe. About two miles to the south is the field of *Langside*, where Mary Queen of Scots was defeated in 1568. At the entrance to the estuary of the *Clyde* are the inlets called **Gare Loch** and **Loch Long**, the latter communicating with **Loch Goil**. Turning south, and passing the island of *Bute*, we next meet with **Loch Fyne**, which stretches far up into *Argyleshire*. To the west of *Loch Fyne*, the long peninsula of **Cantire** stretches to the south, and approaches within fourteen miles of the coast of Ireland. Across a narrow portion of this peninsula has been constructed the *Crinan Canal*, by means of which vessels bound for the west coast may avoid the long and dangerous passage round the *Mull of Cantire*. Near the head of *Loch Fyne* is *Inverary*, and near the southern extremity of the peninsula is *Campbelton*. Both these places are great centres of the herring-fishery ; but the latter is

chiefly noted for the distillation of whisky. The islands in the Firth of Clyde, taken together, form the county of Bute ; and they consist of Bute, Arran, and the two Cumbraes. **Bute** has been called the Montpellier of Scotland ; its chief town is *Rothesay*. **Arran** is a much larger island, but the interior is rugged and mountainous, especially towards its northern extremity, where Goat Fell almost attains the elevation of 3000 feet. The chief towns are *Brodick* and *Lamlash*.

Rounding the Mull of Cantire, and turning north, we arrive at **Islay**. This island is the most fertile and best cultivated of the Hebrides ; it was formerly the residence of the Macdonalds, the "Lords of the Isles." Before the battle of Largs, the Hebrides belonged to Norway ; after this they were nominally under the King of Scotland, but really under the sway of the "Lord of the Isles." Passing **Jura**, we come to *Oban*. This town is built round the bay in the form of a crescent ; it has an extensive carrying trade with the Clyde, being the outlet for a large portion of the surrounding district. Now skirting the island of **Mull**, we come to **Iona**, or Icolmkill, famous for the remains of its monastery founded by St Columba in the sixth century. Many of the Scottish sovereigns, as well as some kings of Norway, Ireland, and France, are here buried. A little to the north is Staffa, containing **Fingal's Cave**. The walls of this cave are formed of basaltic columns ; it is 200 feet long, seventy feet high, and forty feet wide. We next come to **Skye**, covered with rocky mountains. *Portree* is the principal town. **Lewis** is hilly and barren ; its chief town, *Stornoway*, is a thriving place.

COAST OF IRELAND.

I.—GENERAL CHARACTER.

THE coast line is about 2200 miles in length ; everywhere the shores are indented, but particularly on the west and south-west. Like Great Britain, the best harbours are on the south and west coasts. On the east there is but one good harbour, Strangford Lough, and the entrance to that is somewhat dangerous. The coast on the east is generally low and flat, and lined with sand-banks and sunken rocks. From Dublin to Wexford there is not a single good port. The south coast is bolder than the east, and more indented : the principal inlet, Cork harbour, is one of the finest in the world. The west coast is deeply indented, and forms numerous peninsulas, the most remarkable of which is the Mullet. The shores are also skirted with rocky islets. North of Achil Isle, the cliffs are nearly 2000 feet high. The indented character of the west and south-west shores is supposed to be owing to their exposure to the Atlantic, and to the prevalence of the west wind. The insular position of Ireland, its indented shores, and the prevalence of the moist, warm wind, we have spoken of, have a great effect upon its climate : hence its mild winters and frequent showers, hence also its verdant appearance, which has caused it to be named the "Emerald Isle."

II.—PARTICULARS.

1.—FROM FAIR HEAD TO MIZEN HEAD.

Fair Head is a bold mass of bare rock, with cliffs 600 feet high. Turning to the south-east, we come to Belfast

Lough, at the head of which is *Belfast*. This is the second city in Ireland, and the chief seat of the linen manufacture. It is the chief outlet for the province of Ulster, and exports cotton and linen manufactures, and agricultural produce. The most important branch of its commerce is the cross-channel trade. Passing *Carrickfergus*, noted only as a bathing place, and leaving the Lough, we turn to the south and enter **Strangford Lough**: the channel leading into it is about six miles long; it then expands into a large basin, extending north for about fifteen miles, with a breadth of five or six miles. It is well sheltered, has deep water and good anchorage. *Downpatrick*, on its shore, is an old town, and was the ancient residence of the kings of Ulster. Passing *Dundrum Bay* and *Carlingford Bay*, we come to the Bay of *Dundalk*. *Dundalk* and *Drogheda* export considerable quantities of agricultural produce. *Dundalk* has a manufacture of cambric. *Drogheda* was taken, in 1650, by Cromwell, who put the garrison to the sword. Two miles above it was fought the battle of the **Boyne** in 1690.

Passing *Swords*, near which is one of the ancient round towers which have puzzled antiquaries so much, we round **Howth Head**, and enter *Dublin Bay*. This bay is exposed to the east winds, and is encumbered with sand-banks; hence large vessels unload at *Kingston*, at the entrance of the bay; and there is a railway from thence to *Dublin*. This city is noted for its fine buildings: *St Stephen's Square* is one of the finest in the British empire. Leaving *Dublin* and passing *Wicklow*, we come to *Arklow*, at the mouth of the *Avoca*. This city was the ancient residence of the kings of *Leinster*. Here 30,000 insurgents were defeated in 1798. The oyster-fishery is important.

Continuing south, we pass *Wexford*, and leaving **Tuscar Rock**, with its lighthouse, to our left, we round *Carnsore Point*, and enter *Waterford harbour*. The water here is deep, and vessels of 800 tons burden ascend to the town itself. *Waterford*, being the great outlet for the country drained by the *Barrow*, *Nore*, and *Suir*, exports more agricultural produce than any other port in Ireland: it has also steam communication with *Bristol*. To the west of *Waterford harbour* is *Tramore Bay*, one of the most danger-

ous places on the Irish coast ; in hazy weather it is sometimes mistaken by ships for Waterford harbour. There is always a strong current and no anchorage.

Turning south we come to Youghal harbour. Continuing our course, we come to *Cork*. Cork harbour is a spacious basin, capable of holding the entire navy of England ; in the centre of this basin is *Goat Island*, on which stands *Cove*, named *Queenstown* since her Majesty's visit of 1849. Cork is the third port in Ireland ; corn and live stock form the chief exports. The foreign and colonial trade is principally with Portugal, the Mediterranean, the Baltic, and Canada. Passing *Kinsale*, with its excellent harbour, and *Cape Clear*, with its lighthouse, we come to Mizen Head.

2.—FROM MIZEN HEAD ROUND THE WEST COAST TO FAIR HEAD.

Bantry Bay is one of the finest harbours in Europe, but its shores are wild and rugged. An indecisive action took place here between the French and English fleets, (1689 ;) and here the French disembarked under Hoche, (1796.) Passing Kenmare river, we come to the Isle of *Valentia*. Valentia harbour is the best on the coast of Kerry, and is an excellent fishing station. Dingle Bay is shallow. At *Dingle*, as in other towns on this coast, many of the houses are built after the Spanish fashion. In former times the west coast of Ireland was much frequented by Spaniards, who came to trade and to fish ; a number of them also settled in the country. Leaving Dingle Bay, and passing the bay of Tralee, we enter the mouth of the Shannon, and come to *Limerick*. The entrance of the Shannon forms one of the best harbours on the coast. Limerick is the principal outlet for the counties drained by the Shannon, and has considerable trade ; the chief exports are corn and other agricultural produce ; the imports are timber, iron, and colonial produce. The manufacture of lace is carried on to a considerable extent. The treaty of Limerick, which terminated the struggle between James II. and William III., was signed 1691.

Kilrush is agreeably situated on the northern shore of the estuary of the Shannon. The manufacture of woollen and linen goods is carried on to some extent, and there is an important herring-fishery. Now rounding **Loop Head**, we sail north-east, and enter Galway Bay. At the entrance to this inlet the isles of **Arran** form a natural breakwater. *Galway* is the gayest town in Connaught, is a bathing-place, and has an important salmon-fishery. Its commerce was at one time extensive, but has now declined; the chief exports at present are corn, fish, and marble. Rounding **Slyne Head**, we come to Clew Bay, at the entrance of which is Clare Isle. *Westport* and *Newport*, at the head of the bay, are thriving ports. We now pass **Achil** (eagle) **Island**, Blacksod Bay, and the **Mullet**, and come to *Killala*; here the French landed in 1798. To the east is Sligo, a thriving commercial town, near which is a collection of large stones, resembling Stonehenge, called the Giant's Grave. The coast of Donegal is mountainous, wild, and dreary.

Donegal itself is not of much importance; nor is there an inlet of any importance until we come to **Lough Swilly**. This large basin extends about twenty-five miles inland, with deep water and good anchorage; but as there is no place of importance on its shores, like Bantry Bay, it is seldom visited by ships. There are extensive oyster beds in this Lough. Rounding **Malin Head**, we enter **Lough Foyle**, and come to *Londonderry*. This place has considerable trade with America and the West Indies, and is famous for the siege of 1689. Now passing the mouth of the Bann, famous for its salmon, we come to the **Giant's Causeway**. This consists of thousands of basaltic columns forming three piers, the largest of which runs about 1000 feet into the sea. The pillars, for the most part, are hexagonal, and from forty to fifty feet high. Similar columns exist at Fair Head and Bengore Head. Off the coast lies **Rathlin Isle**, which afforded shelter to Robert Bruce when obliged to flee from Scotland.

COAST LINE OF EUROPE.

1.—FROM THE GULF OF KARA TO NORDKYN.

THIS part of the European coast is much indented, and has a general direction, first south-west to the White Sea, and then north-west; but the advantages which this character of the coast might afford to commerce are counterbalanced by the intense cold; for the shores are ice-bound for nearly three quarters of the year; hence we do not find here many places of importance. Beginning at the Gulf of Kara, and following the coast, we pass between the islands of Nova Zembla (new land) and Wai-gatz; passing the mouth of the Petchora, and doubling Cape Kanin, we enter the **White Sea**. Skirting its eastern shore, we pass the mouth of the Mezen, and arrive at *Archangel*, at the mouth of north Dwina. Archangel is built of wood, and was the first Russian port with which England traded; it exports corn, hemp, flax, and timber. The present population is about 25,000. Leaving the White Sea, the coast inclines north-west until we arrive at **Varanger Fiord**, and commence with the Scandinavian coast.

2.—COAST LINE OF THE SCANDINAVIAN PENINSULA.

I.—GENERAL CHARACTER.

The coast is very extensive and high, and very deeply indented in Norway, but low in the south of Sweden. Some of the cliffs on the west are 4000 feet high, and very steep. The openings into the land are called fiords, some of which are 200 miles long, and are generally very deep with clear water. The coast is also skirted with

rocks and islets, which are called *skargard*. As the west coast is washed by the Atlantic, and bathed by the warm west wind, we find the climate far milder than from the position of the country we should expect. The Gulf Stream also must have some influence in modifying the climate, for a great branch of this current flows along this coast as far as North Cape. Then, dividing into two parts, one stream enters Veranger Fiord, while the other flows northward as far as Spitzbergen.

The great extent of the Norwegian coast, its dangerous character, and the stormy seas, must have contributed largely to that fearless and intrepid character for which the Northmen were once celebrated.

II.—PARTICULARS.

Nordkyn is the most northerly point in Europe. A little to the west of this cape is the Isle of Mageroe, on which is North Cape, 1200 feet high. To the south of Mageroe is *Hammerfest*, the most northerly town in Europe, and near to which are extensive copper works. Continuing south, we pass the **Lofoden Isles**, which have cliffs from 100 to 4000 feet high. These islands are chiefly valuable for their fisheries, and for collecting the down from the eider ducks which frequent them. South of these islands is the *Mælstrom*, the whirlpool so much dreaded by Norwegian boatmen. We next come to the **Vigten Isles**—the country from which came Rolf or Rollo, the famous sea-king, conqueror of Normandy, and ancestor of William the Conqueror.

Following the direction of the coast, we next come to *Trondheim* or *Drontheim*, situated on a fiord of that name. It was the ancient capital, and the sovereigns of Sweden are still crowned here as kings of Norway. During the summer months a steamer sails between this place and *Hammerfest*, calling at the intermediate stations. Passing **Romsdale Fiord**, famous for its scenery, we arrive at the promontory of **Statland**, a bold and rugged mass of rock. A little further south is *Bergen*, the entrepôt of the Norwegian fisheries. The foreign trade is chiefly with the Baltic, Hamburg, England, France, and the ~~Mediterranean~~.

anean. The people of Bergen are noted for their excessive politeness. The town itself is well built, and contains a college and cathedral; the surrounding scenery is very picturesque.

Not far south of Bergen is **Hardanger Fiord**, with the famous glacier of Folge Fond. On the eastern shore of this fiord is Rosendal—the vale of roses. This vale presents in spring a delightful “succession of fields, meadows, and groves of fruit-trees, interspersed with a few hamlets and numerous cottages.” **Bukke Fiord**, still further south, is an open bay twenty miles across it.

Leaving this bay, and doubling the **Naze**, we pass *Christiansand*, and sailing up the Gulf of *Christiania*, arrive at the capital. This city, named after its founder Christian IV., is surrounded by pine-clad hills, and is the chief seat for foreign trade; it exports timber and iron. Passing the mouth of the Glommen, we arrive at *Frederickshall*, famous for the death of Charles XII. in 1718. We have now come to the coast of Sweden, and continuing south, we arrive at *Gottenburg* at the mouth of the Gotha. This is the second city in Sweden, and has considerable trade and manufactures. Gotha canal is one of the finest in Europe; it joins the river Gotha to the Baltic by means of the lakes Wener and Wetter. In order to avoid the magnificent falls of Trollhatta, there is a cut through the solid rock nearly a mile in length. The chief use of this canal is to convey timber from the large forests on the shores of Lake Wener to the port of Gottenburg.

Proceeding south, we pass the fortress of *Helsingburg*, and then, rounding the southern extremity of Sweden, we leave **Bornholm** on our right and come to Carlsrona, the chief naval station of Sweden. We next come to *Calmar*, famous for the treaty of 1397, by which Denmark, Norway, and Sweden were united under one sovereign. Gustavus Vasa threw off the Danish yoke in 1502-3. But Norway remained annexed to Denmark until 1814, when the allied powers gave it to Sweden, to which country it still belongs. Opposite to Calmar is the long narrow island of **Öland**. A little to

the north-east is the larger island of **Gothland**, which is covered with forests. There is nothing more of importance until we arrive at *Stockholm*, the capital. This city, partly built on islands, is sometimes called the Venice of the North. The streets on the mainland are generally regular, but those on the islands are narrow and crooked, some of the public buildings, however, are very fine. It is the principal seat of foreign commerce for the kingdom, and exports iron, timber, and deals.

Following the bend of the coast, we leave on our right the **Aland Isles**. They form a group at the entrance of the Gulf of Bothnia, are about 800 in number, and have a population of 12,000. Upon one of the islands was the fortress of *Bomarsund*. We next arrive at *Gefle* which has considerable trade in timber, and extensive iron works are in the neighbourhood. A little further north is *Sundsvall*, a place of some importance for shipbuilding and timber trade. During summer a steamer passes between Sundsvall and *Tornea*. Rapidly passing the mouths of the Umea, Pitea, and Lulea, we come to *Tornea*, at the head of the Gulf of Bothnia.

3.—FROM TORNEA TO THE GULF OF LUBEC.

I.—GENERAL CHARACTER.

We shall generally find that when a coast is high and rocky, the indentations are small but numerous; and, on the contrary, when the coast is low, the indentations, if not so frequent, are larger. Hence, taking that section of the coast of which we are now speaking, we might infer from the map alone that the east and southern shores of the Baltic were low, for there we find the large gulfs of Finland and Riga, with the openings called haffs, while other portions of the coast preserve an unbroken line, as between the mouths of the Vistula and the Oder.

As the shores of the Baltic are generally low, so its depth is not great; this may be owing to the quantity of mud brought down by the numerous rivers which it receives, or, perhaps, as some think, its bed is gradually

rising. Its waters are not very salt; and this, combined with its cold position, causes its harbours to be frozen during the winter months.

The east shore of the Gulf of Bothnia, like the opposite coast of Sweden, has been observed by geologists to have a gradual rise. The coast of Prussia is very flat, in many parts protected by low sand hills, which stretch along the coast. The haffs, before mentioned, are of fresh water, and extremely shallow. The tongue of land enclosing the haffs is called *Nehrung*, (low land.)

II.—PARTICULARS.

There is not much to detain us on the coast of Finland. The modern capital is *Helsingfors*, on the Gulf of Finland. On the rocky islets in front are the batteries constituting the fortress of *Sveaborg*. *Viborg*, another fortress, is further to the east. Turning to the south-east, we come to *Cronstadt*, a strong fortress, naval port, and dockyard. It has a population of 40,000. Passing *Cronstadt*, we come to *Petersburg*, on the Neva, one of the finest cities in Europe; but on account of its low situation, it is subject to inundations. It has a very extensive foreign trade, exporting tallow, hemp, flax, iron, copper, grain, and timber. The principal imports are manufactured goods, colonial produce, wine, coal, and salt. Owing to the shallowness of the Gulf of Finland, most vessels unload at *Cronstadt*. *Petersburg* has water communication with *Nishni Novgorod*, and is connected with *Moscow* by rail. Leaving the capital, and skirting the south shores of the gulf, we come to *Narva*, at the mouth of the *Narova*, famous for a battle in 1700, where *Charles XII.* defeated *Peter the Great*. Continuing west, we pass the town of *Revel*; then, turning to our left, and leaving the island of *Œsel* to our right, we enter the Gulf of *Riga*, which is much impeded by sand-banks. *Riga*, at the mouth of the *Dwina*, is the third port in Russia, and exports hemp, corn, and timber. Leaving the gulf, and turning south, we come to *Memel*, at the entrance to the *Curische Haff*. *Memel* has considerable trade in timber and corn.

We now enter upon the coast of Prussia. **Curische Haff** receives the waters of the Niemen, and is subject to hurricanes. **Frische Haff** receives the waters of the Pregel, and a portion of the Vistula. At the mouth of the Pregel stands *Konigsberg*, or Kingstown, so named after a king of Bohemia, by whom it was founded. It was formerly the capital of Prussia. The Vistula discharges its waters by three mouths, two of which flow into the Frische Haff, but the main stream, on which Dantzic stands, flows into the gulf bearing that name. *Dantzic* is an ancient and badly-built town, but as a corn port ranks second only to Odessa; it also exports timber, beer, flax and hemp, amber and salt: and imports manufactured goods, colonial produce, wines, and furs. By means of a deep canal, the sand-banks which encumber the Vistula immediately below the town, are avoided, and vessels of large size come close up to it.

Leaving the Gulf of Dantzic, the coast bends to the south-west. There is nothing now to detain us until we arrive at **Stettiner Haff**, into which flows the Oder. This haff is protected by the islands of **Usedom** and **Wollin**, between which and the mainland, are three channels, the middle, and principal one, being called the Swine. Upon this channel is built *Swinemunde*, the outport of *Stettin*. *Stettin* is the second port in Prussia; and indeed as regards imports, it is the first. It has considerable manufactures of various kinds, and the most extensive sugar-refining establishment in Prussia. The principal articles of export consist of linens, corn, wool, timber, and zinc; the chief imports are colonial produce, wine, cotton stuffs, yarn, and raw cotton, hardware, coal, and salt. *Swinemund*, on the island of Usedom, where the heavier vessels unload, has the best harbour on the whole south coast of the Baltic.

Leaving *Stettin*, we turn to the north-west, and pass through the narrow channel between Rugen and the mainland. On the coast stands *Stralsund*, which has steam communication with Sweden. Now turning to the south-west, we pass the coast of Mecklenburg Schwerin, and enter the Gulf of Lubec. *Lubec* is at the mouth of the

Trave. A canal communicates between the Trave and the Elbe. It is one of the Hanse towns. The word **Hanse** is derived from Hansa, a league, and refers to a league formed by Lubec, Hamburg, and other cities, in the thirteenth century, for mutual defence against pirates and robbers. At one time the league was exceedingly powerful and flourishing; it is now reduced to four cities—Lubec, Hamburg, Frankfort and Bremen.

4.—THE COAST OF DENMARK.

I.—GENERAL CHARACTER.

The coast line is very broken, and hence of great length. In general it is low, and a great portion of the west coast is protected by dikes. The west coast of Sleswick is lined by a chain of low and narrow islands which have been severed from the mainland. As might have been expected from the extent of the coast, the climate is foggy and humid, but at the same time mild. Denmark is favourably situated for commerce, but the absence of manufactures leaves hardly anything to be exported. The present political condition of Denmark is very unsettled. Probably the result of the present negotiations will be that the provinces of Sleswick and Holstein will be formed into an independent state, and Denmark proper will thus include only Jutland and the Islands.

II.—PARTICULARS.

Following the projection of the coast from Lubec, we arrive at *Kiel*, a place of considerable trade; it has a university. It communicates by a canal with the Eyder, and with Hamburg by rail. A little further north is *Sleswick* on the Sley, a place of some trade. It has a fine cathedral. Continuing north, we pass the **Little Belt**, three-quarters of a mile wide; and turning to our right, sail round Funen, (beautiful country,) and pass through the **Great Belt**, which is eight miles wide. Turning now to the left, we

pass Laland, (low land,) and Falster, and enter the Sound, between Zealand (sea land) and Sweden.

We now arrive at *Copenhagen*, (merchants' harbour.) It is a beautiful town, with three palaces, one of which, called Rosenburg, is surrounded with gardens which are open to the public. The royal library contains four hundred thousand volumes; and the Museum of Northern Antiquities is very valuable. Copenhagen is strongly fortified. Nelson gained a victory here in 1801; and the place was bombarded in 1807. Leaving Copenhagen, we come to *Elsinore*, where the Sound dues were paid: these are now abolished. The dues consisted of five dollars to be paid by each ship; and if not paid at Elsinore, double was to be paid at Copenhagen. It is 500 years since the payment originated.

Leaving Elsinore, and passing *Aarhuus*, we come to **Lym Fiord**. This fiord stretches quite across the country. In 1825, during a storm, the water from the North Sea burst through the narrow isthmus; but the channel is only very shallow. Leaving Lym Fiord, we round the **Skaw**, and turn south. Rapidly passing the **Horn**, and the rock-bound coast of Sleswick, we arrive at the mouth of the Eyder. This river is navigable as far as Rendsburg, whence a canal connects it with Kiel. *Tonningen* is near the mouth of the river. Continuing south we come to the mouth of the Elbe.

5.—FROM THE MOUTH OF THE ELBE TO CALAIS.

I.—GENERAL CHARACTER.

The coast, which has a general direction, first to the west, and then to the south-west, is broken by large indentations, showing its low character. Indeed, in some places it is forty feet below the sea. In some parts low sand-hills have been formed along the coast; in others artificial dikes have been constructed to prevent inundations. The coast of Hanover is protected by dikes; and so is the coast of Holland, as far as Amsterdam. From the Helder, south to Zealand, are dunes, or downs; these have been planted

with a kind of reed, the roots of which bind the sand together. The coast of Zealand is protected by dikes, and the shores of Belgium by dunes from fifty to sixty feet high, on which are numerous fir plantations.

Holland has a coast line 200 miles in length. The climate is humid and foggy; and this, with the almost total absence of minerals, makes the country better suited for agriculture than for manufactures. The position of Holland, and the extent of coast, present great facilities for commerce, and we find that the Dutch have ever been a commercial people. A great quantity of the spices consumed in Europe are introduced by the Dutch, as they have almost exclusive possession of the spice islands.

Belgium has not a great extent of coast, only about forty miles; and, therefore, the moist climate is confined in a great measure to the west. Further inland the country is hilly; and as there are minerals in the south-east, we find important manufactures carried on.

II.—PARTICULARS.

Returning to the Elbe, we commence with *Cuxhaven*, a port belonging to *Hamburg*. *Hamburg* is the principal commercial port of Germany, and stands on the right bank of the Elbe. The principal exports are grain, wool, cattle, German manufactures, and Rhenish wines: the imports are colonial produce, British manufactures, raw cotton, cotton yarn, hides, and coal. *Cuxhaven* has a spacious and deep harbour, and is furnished with a lighthouse. This town is much frequented in summer by sea-bathers: the inhabitants are mostly pilots and fishermen.

Leaving *Cuxhaven*, and passing the mouth of the *Weser* we come to the Gulf of *Jahde*. The coast here belongs to *Oldenburg*, but *Prussia* has purchased a small piece of territory on which she intends forming a naval depôt. A chain of islands extends in a curve from here to the *Helder*, the most important of which is the *Texel*. The *Dollart Zee* (Sea) was formed by an irruption of the ocean in 1277. This gulf receives the waters of the *Ems*, at the mouth of which stands *Emden*, the principal seaport of *Hanover*.

Continuing west, we come to a smaller estuary, the *Lauwer Zee*, from whence the coast curves into the *Zuyder Zee*, (South Sea,) before entering which we pass *Harlingen*, a place possessing much commerce. In the centre of what is now called the *Zuyder Zee*, was once a lake, the waters of which were discharged by a river fifty miles long.

On the south-west of the *Zuyder Zee*, which is very shallow, we have the *Y*, on which stands Amsterdam, at the mouth of the *Amstel*, a branch of the *Rhine*. The *Rhine*, on entering Holland, splits into two branches, the southern one taking the name of *Waal*. Still lower down, the river again divides, the main arm taking the name of *Lech*,—the other, which flows past *Utrecht* and *Leyden*, being called the *Old Rhine*. Just after entering Holland, the *Rhine* throws off a branch called the *Yssel*, which enters the *Zuyder Zee*; and midway between *Utrecht* and *Leyden*, the *Amstel* leaves the main stream, and flows into the estuary called the *Y*. *Amsterdam* is crescent-shaped, and intersected by canals connected together by 250 bridges, mostly of stone. It has considerable manufactures of linen, woollen, and cotton goods, machinery and shipbuilding, but is principally distinguished as a place of trade. The exports consist partly of the produce of Holland, partly of the produce of her colonies, and partly of the produce of different parts of Europe, which is brought here as a convenient entrepôt.

Haarlem Meer lay to the west of Amsterdam; it was formed by an irruption of the sea in 1539. At that time 26,000 acres of pasture land, with meadows, cattle, gardens, and a whole village, were deluged. The Meer has recently been completely drained, and is now covered with farms and dwellings. On the shore opposite to Amsterdam is *Saardam*, the residence of Peter the Great in 1697. A little to the north is *Hoorn*, the birthplace of Schouten, who discovered Cape Horn (*Hoorn*) in 1616, and of Tasman, who discovered Van Dieman's Land and New Zealand in 1642. The *Helder* is a strong fortress. Off the coast a battle was fought in 1653, in which Van Tromp was killed.

From the *Helder* a canal, fifty miles long, communicates

with the Y; it admits ships of every size. Turning south, we pass the village of *Camperdown*; off the coast was fought a naval battle by Admiral Duncan in 1797. Further south is the *Hague*, which is three miles from the coast. It is one of the best built cities in Europe; the streets are wide and straight, and there are numerous walks shaded with trees. The Hague is the seat of government: an avenue three miles long leads to the watering-place of *Scheveling*. It was from this port that Charles II. embarked in 1660.

Rotterdam, on the north bank of the Meuse, where it is joined by the Rotte, is the second city in Holland. It is the great outlet for the countries drained by the Rhine and the Meuse: the principal exports are agricultural and colonial produce, grain, timber, and wine. Steam-packets run regularly to London, Cologne, and Mæstricht. Erasmus was a native of Rotterdam, and a monument has been erected to his memory.

We now come to the group of islands forming Zeeland, the principal of which is Walcheren, on which are the towns of *Middleberg* and *Flushing*. It appears that the Dutch have now commenced to fill up two arms of the sea, and replace them by a navigable canal. By this means they will gain from the Scheldt 35,000 acres of the finest land. This canal will cross the island of South Beveland. Zeeland has been the theatre of some unfortunate English expeditions. One in the time of James I., in favour of the Elector Palatine; another under the Duke of York, in 1793; and a third, under the Earl of Chatham, in 1809. In each case our troops suffered from the damp unwholesome climate; which, though not injurious to natives, is very trying to strangers.

We now arrive at the coast of Belgium. The best harbour on this coast is *Ostend*. Travellers to the Continent often land here. It is a packet station, and a watering-place, frequented by visitors from France and Germany. Rapidly glancing at *Nieuport* and *Furnes*, we arrive at the coast of France.

6.—COAST OF FRANCE.

I.—GENERAL CHARACTER.

France has nearly 1500 miles of coast line, of which about 360 are in the Mediterranean. Upon the whole, the coast is not much indented; the mouths of its four chief rivers being the principal openings. Speaking generally, we may say that the outline of the coast consists of four curves—from Calais to Cape la Hague, from La Hague to Brest, from Brest to Bayonne, and the compound curve forming the Mediterranean coast line.

From Calais to the mouth of the Loire the coast is rather high; and, in West Brittany especially, is lofty and precipitous, with numerous adjacent isles. South of the Loire the coast is low, and frequently lined with salt marshes. Still farther south, from the Gironde to the Pyrenees, the coast forms almost a straight line, with but one opening, and is bordered by the district called the **Landes**. This is a sandy tract, interspersed with marshes and belts of pine forests. This district, in the south, is of considerable width, but contracts towards the north. On both banks of the Gironde is a fine rich black soil called the *Palus*; and between this and the **Landes** is a district called the *Medoc*, which, though only poor soil, produces the richest grapes, from which the choice wines of this district are manufactured.

The coast of France round the Gulf of Lyons is low and lined with salt lagoons; farther to the eastward the shores assume a bolder character as far as Toulon, and thence to the borders of Italy are bold and rugged.

II.—PARTICULARS.

Dunkirk signifies the *church of the dunes*, or sand hills; it is situated in a dreary waste, but owing to its position has considerable trade. It was given up to the English in the time of Cromwell, but was sold to France again by Charles II. To the west stands Calais, a well-known place.

of debarkation for travellers from England. It was taken by Edward III. in 1347, but was re-captured by the Duke of Guise, (1558.) Passing **Cape Gris Nez** we turn south, and arrive at *Boulogne*. Here took place the foundation of the legion of honour, (August 15, 1805,) and to commemorate this event, as well as the anticipated conquest of England, a monumental column was erected at the expense of the army there assembled, and dedicated to the Emperor. Now following the bend of the coast, we come to *Dieppe*. This is the chief watering-place in France, and is much frequented by visitors. Ivory articles are here manufactured in great perfection. Leaving *Dieppe*, and passing *Fecamp*, where Charles II. landed in 1651, we reach *Havre*. This is the second port in France, and the great outlet for the country drained by the Seine. The chief exports are silks, cottons, woollens, ironware, flour, wine, and liqueurs. The imports consist of colonial produce, cotton, and tobacco. About four miles to the east stands *Harfleur*, so disastrous to Henry V. (1415.) On the opposite side of the estuary is *Honfleur*, which exports corn, cider, and dairy produce. Here Sir S. Smith was taken prisoner in 1796.

Now leaving the mouth of the Seine, and continuing westward, we come to the peninsula of **Cotentin**. *Cherbourg* is one of the chief naval stations of France. Off **Cape la Hague** the English gained a great naval victory in 1692. The **Channel Islands**, including Jersey, Guernsey, Alderney, and Sark, belong to England, and are the only remnant of our Norman possessions. *Alderney* is noted for its cows. *St Helier*, in Jersey, has a population of 10,000. Leaving *St Malo*, whence the Earl of Richmond set sail in 1483, and proceeding westward, we arrive at the island of *Ushant*, and rounding the coast we come to *Brest*, one of the chief naval stations of France. Still continuing our course, and leaving **Belle Isle** to our right, we come to the mouth of the Loire. *Nantes*, at the mouth of this river, is important for its trade, manufactures, and commerce; it is the outlet for the district drained by the Loire, and exports silk, wine, woollen, and linen goods: its chief imports are colonial produce, cotton, timber, and

hemp. The edict of Nantes, granting toleration to Protestants, was passed in 1598, and revoked in 1685.

Leaving the Loire, and skirting the shores of La Vendee, famous during the French Revolution, we pass the Isle of Re, and come to *Rochelle*. It is situated at the head of a deep bay, and was besieged by Richelieu, in 1627-8. *Rochefort*, at the mouth of the Charente, is a modern town, and an important naval station. Off the coast is the island of Oleron. Sailing up the *Gironde*, we arrive at *Bordeaux*. It consists of two parts; the old town with its narrow crooked streets, and the new town which is well and handsomely built. The Languedoc Canal connects it with the Mediterranean. Its chief exports are wine, brandy, and fruits. It was the birthplace of the Black Prince and his son Richard II. From the *Gironde* the coast stretches in almost a straight line to *Bayonne*, which is a pretty town, situated on the Adour; it is well fortified. Bayonets were invented here. Four miles to the south is *Biarritz*, a favourite watering-place.

Proceeding now to the Mediterranean coast, we find *Perpignan*, which, like Bayonne, is strongly fortified as a frontier town. A little farther north is *Narbonne*, noted for its Roman antiquities. *Cette*, at the mouth of the Great Canal, has considerable trade; it manufactures different kinds of wine by the mixture of port, sherry, champagne, and claret. Its salt works are the most extensive in the country. *Montpellier*, to the north, is a great resort for invalids. Close by the town the Esplanade, a large space planted with trees, forms one of the finest public walks in Europe.

We now arrive at the delta formed at the mouth of the Rhone. This river is navigable to Geneva, and with steamboats as far as Lyons. *Marseilles* is the first port in France, and has an excellent harbour. Its trade, which was always considerable, has been nearly doubled by the acquisition of Algiers. It exports soap, olive oil, wine, dried fruit, and oranges; and imports colonial produce, cotton, wool, dye-woods, and iron. It has also a great transit trade between Germany, Savoy, Switzerland, and Spain, Italy, and the Levant. Farther to the east is *Toulon*, which has

been termed the Brest of the Mediterranean, and the Plymouth of France. It was at the siege of this place that Napoleon first distinguished himself. Passing the small port of *Frejus*, where Napoleon landed in 1799, we come to *Nice*, pleasantly situated at the base of a semicircle of hills clothed with groves of orange and lemon trees. The small town of *Monaco* is the capital of a little principality, ten miles long by three broad, under the protection of France

7.—COAST OF THE SPANISH PENINSULA.

I.—GENERAL CHARACTER.

This peninsula, which is connected to France by an isthmus 230 miles broad, is exceedingly compact in form, and destitute of large indentations; in this respect it presents a remarkable contrast to the other great peninsulas of Europe: consequently, the surrounding waters have not that effect on the climate they otherwise would have. The climate is dry, except on the north and north-west coasts, and the interior of the country is subject to extremes of temperature.

There is also a deficiency of good harbours, considering the extent of coast line. The north and west coasts are in general rugged, though the broad bay of Setubal is lined with salt marshes. Capes Roca and St Vincent, as they both terminate mountain chains, are high and rocky; but to the south and east fertile plains slope towards the sea.

II.—PARTICULARS.

Leaving Bayonne, we pass the Bidassoa, which Wellington crossed, (1813,) and arrive at *St Sebastian*, which capitulated to the English the same year. The coast now inclines to the north-west as far as *Cape Ortegal*, and the only place of importance is *Santander*. Between Capes Ortegal and *Finisterre*, (Land's End,) is a fine inlet, on one side of which is built *Ferrol*, on the other *Corunna*. The trade of both places has declined before the import-

ance of Santander. The battle of Corunna was fought in 1809. The French erected a tomb in honour of Sir John Moore.

A little south of Finisterre is *Vigo*, situated on one of the finest natural harbours in the world. Here the allied flags of England and Holland gained a victory over the Spanish Plate fleet, (1702.) Leaving *Vigo*, and following the direction of the coast, we pass the mouth of the Minho, and come to *Oporto*, at the mouth of the Douro. This is the second city in Portugal, and has considerable trade. The principal exports are wine, oil, fruits, wool, salt, and cork. The imports are colonial produce, manufactured goods, corn, fish, flax and hemp, and rice.

Continuing south, we pass the mouth of the Mondego, where Wellington landed in 1808. Still farther south we pass *Vimeira*, where was a battle the same year. Not far from the coast also is *Torres Vedras*, famous for the lines of defence, (1810.) Still farther south is *Cintra*; the neighbourhood is extremely beautiful, and the climate mild and agreeable, and hence it is much resorted to by the wealthier inhabitants of Lisbon. It is also celebrated for the Convention of 1808, by which the French, after their defeat at *Vimeira*, were allowed to withdraw from Portugal with their arms and property.

Now rounding *Cape Roca*, we arrive at *Lisbon*, at the mouth of the Tagus. This city, built on an amphitheatre of hills, has a splendid situation, and when viewed from the harbour it has a fine appearance; but many of its streets are narrow, winding, and filthy. The strong castle of Belem defends the approach to the capital, and here the Tagus is only about a mile in breadth, but above Lisbon it expands into a broad estuary, about seven miles wide, and forms a magnificent harbour. The earthquake which happened here in 1755, was felt at the same time in Scotland, the West Indies, and South America.

Leaving *Cape Espichel*, we arrive at the Bay of *Setubal*. *Setubal* has considerable trade, and exports wines, fruits, and salt. From hence to *Cape St Vincent*, is almost a straight line. Off the cape was fought the naval battle of 1797. The coast now curves to *Cape St Maria*,

and then a large curve brings us to Gibraltar. In the second curve we must notice *Palos*, the port from which Columbus sailed in 1492, and Cadiz, on the island of Leon. *Cadiz* formerly possessed great trade, but since the Spanish colonies in America declared their independence, its trade has declined. Its chief exports are sherry wine and salt. On the eastern side of the harbour is *Santa Maria*, the principal depot of the wines of Xeres. Cadiz is often mentioned in English history. It was taken by Essex, (1596,) and in 1656 it was blockaded by Blake, who captured two galleons and sunk eight others.

We next pass **Cape Trafalgar**, celebrated for the victory gained by the English over the French and Spanish fleets; it was dearly purchased, however, by the death of Nelson, who was mortally wounded early in the action, (1805.) The rock of **Gibraltar** is three miles long, and half a mile broad. It is perpendicular on the north, but slopes to the sea on the west. It was taken by the English in 1704, and was besieged by the united fleets of Spain and France, (1782,) but without success.

The coast now curves east to **Cape Gata**. A short curve now brings us to Cape Palos; a similar one to Cape St Martin; and then a large one takes us to **Cape Creux**. In the first curve we find *Malaga*, a place of considerable commercial importance: the chief exports are dried fruits and wine. A little to the west of Cape Palos is *Carthage*, founded by the Carthaginians: it has one of the largest and safest harbours in the Mediterranean, and exports wine and grain. Rounding **Cape Palos**, and proceeding to the north, we arrive at *Alicant*. This town stands at the base of a rocky eminence 400 feet high, on the top of which is a castle; it exports wine, barilla, and fruits. Rounding **Cape S. Martin**, we come to *Valencia*, near the mouth of the Guadalaviar. It is the great centre of the silk trade. The present cathedral has been a Pagan temple, a Christian church, and a mosque. The province of Valencia has been called the Garden of Spain.

Continuing northwards, we arrive at *Tortosa*, near the mouth of the Ebro. This is a flourishing town, and exports oil and silk. The surrounding district is fertile, and

there are mines of jasper and alabaster in the neighbourhood. Leaving Tortosa, and passing *Tarragona*, which was founded by the Phœnicians, we arrive at *Barcelona*. This is the second city in Spain, and has important manufactures, the principal of which are silks, woollens, cottons, and shoes. Its chief exports are iron, copper, cork, fruits, and wine.

8.—COAST OF ITALY.

I.—GENERAL CHARACTER.

The coast of Italy is extensive, but not much indented : in shape it is not unlike a boot. From Nice to the mouth of the Arno the coast is rocky : thence southward for about 200 miles to the town of Terracina, it is low and sandy or marshy, and subject to the malaria, (bad air.) In Tuscany this tract is called Maremma ; farther south it is called Campagna di Roma ; and, in the extreme south, the Pontine Marshes. Round Naples the soil is rich, and free from the malaria. The south coast of Italy is generally rocky, though there are salt marshes in the neighbourhood of Taranto. The east coast is low and sandy, without good ports, and bordered by dangerous shoals. From Ravenna to the Gulf of Trieste there is an uninterrupted succession of recent accessions of land consisting of mud brought down by the rivers. This tract has increased from two to twenty miles since the commencement of the Christian era.

II.—PARTICULARS.

Following the coast we come to *Genoa*, beautifully built on the verge of a semicircular bay, and called by the Italians "Genoa the Superb." Though not so famous as it once was, it still possesses great trade and manufactures. The principal exports are olive oil, rice, fruits, silks, damasks, and velvet. Genoa at one time could rival Venice in commerce and wealth, and in the fourteenth century almost conquered that republic ; but the conquests of the Turks, and the discovery of the passage to India round

the Cape of Good Hope, caused its trade to decline. It was the birthplace of Columbus.

We next come to *Carrara*, celebrated for its quarries of marble. Turning south, we come to *Pisa*, at the mouth of the Arno. It is a decayed city, has a university, and was the birthplace of Galileo. A little south of the Arno is *Leghorn*, the chief port in Italy. It has a fine harbour between the island of Melora and the mainland. The principal exports are silks, straw-hats, and plait, oil, fruits, wine, and borax. In the fifteenth century it was a mere village in the midst of swamps. Continuing south, and leaving the island of Elba to our right, we arrive at *Civita Vecchia*, once the chief port of the Papal States. A little farther south is the mouth of the Tiber.

Passing the Gulf of Gaeta, and leaving the island of Ischia to our right, we enter the Bay of Naples. *Naples* has perhaps the finest situation in Europe. It is built on the sides of hills, sloping to a semicircular bay. The surrounding country is rich in groves of orange, lemon, and other fruits; and in the background rise the snow-capped Apennines. It is a very busy place, as a great amount of trade is conducted in the open air. In the neighbourhood of Vesuvius are the ancient cities of Pompeii and Herculaneum. Rounding **Cape Campanella**, we come to *Amalfi*. During the middle ages this city formed a flourishing republic, and carried on an extensive trade with Egypt and the shores of the Levant. Amalfi took an active part in the Crusades, and founded the hospital of St John of Jerusalem, from which arose the famous order of knights. Amalfi was twice captured and plundered,—by the Normans in 1075, and by the Pisans in 1130. On this occasion a copy of the Pandects of Justinian was discovered. It was the birthplace of Flavia Gioja, who either invented or greatly improved the mariner's compass.

Leaving Amalfi we come to *Salerno*, famous for its ancient school of medicine. Now turning south, and passing the Gulf of Policastro on our left, and flaming Stromboli on our right, we enter the Straits of Messina. *Messina* has one of the finest harbours in Europe, and its environs are

the best cultivated and most thickly populated of any part of Sicily. On the east side of the strait is *Reggio*, or *Rhegium*, (Acts xxviii. 13.) On the Italian side of these straits is the rock *Scylla*, and on the Sicilian side the whirlpool *Charybdis*, so often mentioned by the ancients. On these straits also is the remarkable mirage called *Fata Morgana*.

Rounding *Cape Spartivento*, and passing the gulf and town of *Squillace*, we enter the Gulf of Taranto. *Taranto* was a famous city before Rome was built. It is not now of much importance. There are salt marshes in the neighbourhood. Doubling *Cape di Leuca*, we pass *Otranto*, a small fortified town, and arrive at the Gulf of *Manfredonia*.

Passing the peninsula of *Gargano*, the coast curves to *Ancona*; but before reaching this place, we pass *Loretto*, famous for the holy house pretended to have been brought by angels from Nazareth; it is now enshrined in marble. *Ancona* is an entrepôt for European goods for the Levant, and the only good port between *Manfredonia* and *Venice*. It has considerable trade, and exports wool, silk, sulphur, and fruits; the chief imports are manufactured goods, hardware, and coals. From *Ancona* the coast curves again to the mouth of the *Po*. In the curve is situated *Ravenna*, which formerly stood on the coast. It is now several miles inland. It contains the tomb of the poet *Dante*.

Passing the mouths of the *Po*, we arrive at *Venice*. This city is built on a hundred islands in a salt lagoon, which is almost land-locked. It was built A.D. 452, by the inhabitants of the coast, who fled from *Attila*. It is completely intersected by canals. The *Rialto* is a famous bridge over the *Grand Canal*. Its commerce has greatly diminished since the discovery of the Cape of Good Hope. It has important manufactures of glass and jewellery, and shipbuilding is carried on to some extent. Being the entrepôt of the adjoining province of *Lombardy*, its trade is still considerable.

9.—FROM THE GULF OF TRIESTE TO THE GULF OF VOLO.

I.—GENERAL CHARACTER.

The Austrian portion of the coast is high and rocky, and bounded by a chain of islands. Then from Scutari to Cape Linguetta, the coast is low and sandy. The rest of the coast is rocky and much indented. The south part of Greece is called the *Morea* (mulberry tree) from its resemblance to a mulberry leaf. The islands surrounding this section of the coast may be grouped into four classes, the Dalmatian Archipelago, the Ionian Islands, the Cyclades—which surround Paros—and the Sporades, including all the rest; *Sporas* means scattered. Negropont, of course, is not included.

II.—PARTICULARS.

Trieste is the chief port in Austria, and trades in oil, wine, and silk. To the south of Trieste, at the extremity of the peninsula of Istra, is *Pola*. It has a good harbour, and it is intended to make a naval station here, but the situation is unhealthy. *Fiume*, at the head of the Gulf of Quarnero, is the chief port of the Hungarian provinces. It exports corn and other agricultural produce. The province of Dalmatia forms nominally an independent kingdom. The inhabitants are industrious and enterprising mariners. *Zara* is the seat of the provincial government. *Spalatro*, *Ragusa*, and *Cattaro* are all busy commercial towns, with an active coasting trade. Near Spalatro are the ruins of the palace where the Emperor Diocletian resided after his abdication.

We now arrive at the coast of Turkey. Passing the Gulf of Drin, into which a river of that name flows, we arrive at *Valona*, the chief port on the Albanian coast. Leaving it, we double *Cape Linguetta*, which terminates an offset of the Pindus, and passing Corfu and Paxo, belonging to the Ionian Islands, we arrive at the town and Gulf of *Arta*. It was at the entrance of this gulf that

the great battle of Actium was fought between Augustus Cæsar and Mark Antony, (B.C. 30.) The **Ionian Islands** formerly constituted a republic, under the protection of Great Britain, but recently, (1863,) at their own request, they have been annexed to the kingdom of Greece. *Corfu*, the largest of the islands, produces abundance of olive oil. The staple production of *Santa Maura* is salt. *Ithaca* is noted for the excellence of its wines. *Cephalonia* and *Zante* are the chief currant-producing islands. *Cerigo*, east of Cape Matapan, is celebrated for the quality of its honey and the number of its horned cattle.

Skirting the shores of Greece, we enter the Gulf of Patras. *Patras* has considerable trade, and is finely situated on the slope of a hill. Passing through a narrow channel, we enter the Gulf of Lepanto. This gulf is famous for the great naval battle, (1570,) when the Turks lost 35,000 men. *Corinth*, on the shores of this gulf, is now chiefly in ruins. The narrow channel between the Gulfs of Patras and Lepanto is protected by castles on each shore, which are sometimes called the **Little Dardanelles**. Returning, we call at *Missolonghi*, where Byron died, (1824,) and then, leaving the channel, and skirting the Gulf of Arcadia, we come to *Navarino*, famous for the naval battle in 1827. Passing the Gulfs of Koron and Laconia, and the Capes Matapan and Malia, we turn north, and arrive at *Nauplia*. Its citadel has been called the Gibraltar of Greece; it is situated on a rock 800 feet high, inaccessible except on one side. Leaving Nauplia, we pass the islands of Spezzia, Hydra, and Poros, and enter the Gulf of Egina. The inhabitants of Hydra make good sailors. The capital is a handsome, well-built town. In the gulf we find the islands of Egina and Salamis. Egina is of ancient importance, and Salamis is famous for the battle fought B.C. 480. Before leaving the gulf, we call at *Athens*, which is more interesting for the ruins of its former greatness than for its present importance. In its situation it is said to resemble Edinburgh, being built on the side of a rocky eminence. Athens is rich in the remains of former grandeur, and on every side are the vestiges of the different nations who have had it in pos-

session. Among the monuments of antiquity still remaining is the citadel, called Acropolis, containing the remains of the Parthenon, and to the west is Areopagus, or Mar's Hill, (Acts xvii. 19-22.)

Leaving Athens, we round **Cape Colonna**, which receives its name from some fine columns which crown its summit, being the remains of a temple of Minerva. Passing these, we sail north, and not far from the coast is *Marathon*, celebrated for the battle fought B.C. 490. We now sail up the channel of **Negropont** and **Talanti**. This channel is not fifty yards wide at its narrowest part. A rock rises in the middle of the channel, on which stands a castle, and this castle is connected with the shores on each side by means of a bridge. The island of Negropont is 100 miles long. Its chief town is *Egripo*. Leaving the channel, we once more approach the Turkish shores.

10.—FROM THE GULF OF VOLO TO THE BORDERS OF ASIA.

I.—GENERAL CHARACTER.

The direction of the coast is first to the north as far as *Salonica*; then, passing the triple peninsula, we continue east to the Thracian Chersonese; passing which, we enter the Sea of Marmora, and come to Constantinople. From thence the coast continues north as far as the mouths of the Danube; it then curves round to the Crimea; from thence, passing the Sea of Azof, the coast curves to the south-east to *Poti*. From *Volo* to Constantinople the coast is rocky and much indented; thence to the east of the Crimea, it is low and flat. The shores also of the Sea of Azof are low, but the remainder of the coast is high and rocky.

II.—PARTICULARS.

Leaving *Volo*, and sailing north, we come to *Salonica*, near the mouth of the *Vardar*. This city, the ancient Thessalonica, is the second port in Turkey, and exports leather and cotton. A peninsula here projects into the

sea and divides into three parts, forming the Gulfs of **Cas-sandro** and **Monte Santo**. This latter name is also applied to the most eastern part of the peninsula. It consists of a narrow ridge rising 6000 feet above the sea. Its sides are covered with monasteries, and nothing feminine—not even a female cat—is allowed to come into the neighbourhood.

Leaving this place, and passing the Gulf of **Contessa**, into which the *Strouma* empties itself, we come to *Enos*, having passed the island of *Thaso*. *Enos*, at the entrance of a small gulf near the mouth of the *Maritza*, is the port of **Adrianople**. We now come to the tongue of land which forms the western boundary of the **Dardanelles**. This channel is so called from some castles on its banks of that name. The entrance is about two miles wide, and is defended by a fort on either side; other forts and batteries are also placed farther up the channel. The European shore is rugged and rocky, but the Asiatic side presents some beautiful scenery. At its narrowest part, where the **Dardanelles** defend the passage, the strait is only three-quarters of a mile wide. The principal town on the European side is *Gallipoli*. This place is noted for the manufacture of morocco leather, and here the Turks landed on their entrance into Europe in 1355.

We now enter the Sea of **Marmora**, so named from an island in it which abounds in marble, (*marmaros*.) Sailing on, we come to *Constantinople*, on the **Bosphorus**. This city has a splendid situation and a fine harbour, but the streets are narrow and filthy. It contains some fine public buildings, however, such as the *Seraglio* and the church of *St Sophia*. Some of the mosques also display great beauty, as they are generally surrounded with trees and fountains. The foreign trade of *Constantinople* is considerable. The chief imports are corn, iron, timber, manufactured goods, coffee, sugar, drugs, and porcelain. The exports are silk, carpets, wool, goats' hair, and diamonds; the trade is for the most part in the hands of foreigners. The coast now curves to the north as far as *Varna*, before arriving at which we pass **Cape Emineh**, which terminates the **Balkan** range. *Varna* is an import-

ant seaport and a strong fortress, and from thence the Crimean expedition set out, (1854.)

The coast now bends to the north-east as far as the mouths of the Danube. The delta consists of four mouths, and is covered with bulrushes. The stream can be perceived fifty miles out at sea. The most southern channel passes through Lake Raselm, 160 square miles in area, but only from six to nine feet deep; most of the mouths are obstructed by sand-banks. Continuing our course, and passing the mouth of the Dniester, we come to *Odessa*. This city was founded by the Empress Catherine in 1792, and has become, as was intended, the emporium of Russian trade in the Black Sea. It is the great outlet for the corn districts of southern Russia; it exports also tallow and wool.

Leaving *Odessa*, we arrive at *Kherson*, at the mouth of the Dnieper. It was founded by Catherine II. in 1778. Here died Howard the philanthropist, and a monument has been erected to his memory; it is three miles from the city. Leaving *Kherson*, we arrive at the gulf, town, and isthmus of *Perekop*. The isthmus is five miles wide at its narrowest part. The town is the key to the Crimea.

The **Crimea** has an area of 10,000 square miles, of which nearly three-fourths is steppe land. The mountain region in the south-west is delightful. The Greeks planted colonies here six hundred years before Christ. We now pass *Eupatoria*, where the allies landed, and come to the *Alma*, a small stream rendered famous by the victory gained by the allies in September 1854. *Sebastopol*, or *Sevastopol*, was founded by Catherine II. in 1780. The siege for which it was celebrated lasted nearly eleven months, during which three bloody battles were fought, those of *Balaklava*, *Inkerman*, and the *Chernaya*. At length it was taken by assault September 7th, 1855.

Balaklava is a small town to the south-east. Turning now to the north-east, we come to *Kaffa*, on the shores of a fine bay. Passing the Straits of *Yenikale*, (new castle,) we come to *Kertch*. The fortress of *Yenikale* was built by the Turks to command the passage. *Kertch* was captured by the allied fleet in 1855. Passing the tongue of

Arabat, which is seventy miles in length, we enter the Putrid Sea. Leaving it, we sail to *Taganrog*, at the northern extremity of the Sea of Azof. This place is at the mouth of the Don, and is the chief outlet for the countries watered by that river. Its trade is impeded by the shallowness of the sea, and its port is frozen from December to March. Returning through the Straits of Yenikale, and passing *Taman*, at the mouth of the Kuban, we come to *Anapa*, which, before the war with Russia, was described as "a gloomy looking place with strong fortifications." We thus finish the coast of Europe.

COAST OF ASIA.

I.—GENERAL CHARACTER.

ASIA, though not so much indented as Europe, yet has a considerable extent of coast. The coast line is about 35,000 miles in length. The general direction of the north coast is from east to west; it is much indented, but the intense cold which prevails prevents it from being of any commercial importance. The cliffs, which are of gravel, are not high; and the whole shore is fringed with "snow-clad rocks and islands."

The three great rivers which flow into the Arctic Ocean are the Obi, the Yenisei, and the Lena: each is nearly 3000 miles long. Their currents are slow, hence the name Lena, or sluggard, applied to one of them. They abound in fish. Masses of ice often pile themselves up at the mouths of these rivers, and cause frequent inundations. Near the mouth of the Lena are the **Liakhov Islands**, famous for their abundance of fossil ivory, which forms an important article of export from Siberia.

The east coast of Asia is washed by five land-locked seas, of not very considerable depth, as the true bed of the ocean only commences outside the chain of islands. Contrary to what has been considered the general rule, these shallow seas are edged in by rugged shores for the most part, though the deltas formed at the mouths of some of the rivers show that in parts the coast is low. The climate of eastern Asia is much colder—that is, the northern portion of the coast—than in corresponding latitudes in the west of Europe. This may be owing to the

fact, that while the coast of Europe is bathed by the warm south-west wind, the east of Asia is cooled by the north-east wind.

The south coast of Asia, like the south of Europe, consists of three peninsulas. In both continents the first peninsula—beginning at the west—is separated by a narrow channel from Africa, the middle peninsula in each has an island at its south extremity, while in each the third peninsula has an archipelago to the east of it. All the countries to the south of Asia seem to have large plateaus in their interiors, with low plains lying along the coast—hence we find deltas at the mouths of many of the rivers.

The east coast of Hindostan, called the Coromandel coast, consists of a long slip of lowland, backed by the Ghauts : it is quite destitute of good harbours, and is exposed to a powerful surf. The west, or Malabar coast, has a narrower strip of land, with some good harbours. On the western shore of the Persian Gulf, and in the Red Sea, are extensive coral reefs ; and valuable pearl-fisheries exist both in the Persian Gulf and in Palk's Straits. The climate, all along the south coast, is tropical ; in Arabia and Persia, dry and hot ; but to the east, hot and humid.

The coast of western Asia is washed by the Mediterranean and Black Seas. From Gaza to Beirut a level plain extends along the shore. The coast then assumes a bolder character, and the south shores of Asia Minor present a bold irregular outline of steep and lofty rocks. The west of this peninsula has the same rugged and jagged appearance. The coast washed by the Black Sea is bold and steep, with deep water close to the shore.

II.—PARTICULARS.

1.—EAST COAST OF ASIA.

We have before remarked that the east coast of Asia is washed by five land-locked seas. These are—the Seas of Kamtchatka and Okhotsk, and the Japan, the Yellow, and the Chinese Seas. The Sea of Kamtchatka is enclosed

by the peninsulas of Aliaska and Kamtchatka, and by the Aleutian Islands. These islands are the centre of a fierce volcanic agency. Kamtchatka is also volcanic. The waters which wash its shores are inhabited by whales, walruses, and seals; while closer to the coast is abundance of fish and water-fowl. The chief town is *Petropaulovsk*—the port of Peter and Paul. Here are two monuments to the ill-fated navigators, La Perouse and Behring.

Rounding **Cape Lopatka**, we enter the Sea of Okhotsk, which is protected by the Kurile Islands, and the large island of **Saghalien**, which now belongs wholly to Russia. The town of *Okhotsk*, near the mouth of the Okhota, is a naval port, and has a shipyard and arsenal. *Nicolayevsky*, at the mouth of the Amoor, and *Port Imperial*, in the Gulf of Tartary, are both Russian towns of growing importance. The Sea of Japan is land-locked by the Corea and the Japan Islands. These islands, which are separated from Saghalien by the Straits of Perouse, as well as the Kurile Islands, are volcanic. The **Japan Isles** have an area of 160,000 square miles. In the year 1858 a treaty was concluded between these islands and Great Britain. Certain ports are now thrown open, and imports admitted on payment of a slight duty; and all privileges granted hereafter to other nations, are to be participated in by the British Government and subjects. The **Corea** is well cultivated and thickly populated. It is governed by a native king. There is no intercourse with Europeans.

Passing through the Straits of Corea, we enter the Yellow Sea, so named from its thick muddy waters. This sea is enclosed by the Loo Choo Isles and the Island of Formosa. At the north-west of the Yellow Sea is the Gulf of Pechili, into which flows the Pei-ho, or Tien-tsin river. Considerable interest attaches to this river since the expedition of the late Lord Elgin to Pekin in 1858; and the treacherous massacre at the *Takoo* forts in June of the following year. *Shanghai* is the second port in China, and is the chief outlet for the country traversed by the canal and the two great rivers. The exports are silk, tea, porcelain, and cotton; the imports, opium, sugar, birds' nests, and manufactured goods. *Shanghai* is the most northerly of

the five ports opened to foreigners by the treaty of 1842; the other four were *Ningpo*, *Foo-choo*, *Amoy*, and *Canton*. But by the last treaty, (1858,) all ports are thrown open, the Christian religion is tolerated, and a British diplomatic agent resides at Peking.

Passing through the Straits of Formosa, we enter the China Sea. This sea is enclosed by the peninsula of Malaya, the island of Borneo and the Philippines. These islands, as well as Formosa, are volcanic. This part of the Asiatic coast is devastated once in three or four years by those terrible hurricanes—the typhoons.

Canton, on the Canton river, is the chief port of China. It has considerable trade both inland and by sea. The chief exports are tea, silver, silk, and chinaware; the imports consist principally of articles of British manufacture. The population is supposed to exceed 1,000,000. The island of **Hong Kong**, situated at the mouth of the river, belongs to Great Britain. The capital *Victoria* is a thriving place, and carries on a considerable trade in sugar with Shanghai, India, New South Wales, and England.

Now passing the island of Hainan, we enter the Gulf of Tonquin. *Huê*, the capital of Anam, has a population of 50,000. Then passing the mouth of the Cambodia, we enter the Gulf of Siam, on which stands *Siam*, near the mouth of the Meinam. This city was the old capital, but the present capital is *Bankok*: each has a population of about 100,000. Now sailing south to Cape Romania, we finish the east coast.

2.—SOUTH COAST OF ASIA.

Singapore, situated on an island of the same name, has been in the possession of England since 1819. It carries on an extensive trade, as its port is free to vessels of all nations without charges on imports and exports. It is the great market to which ships from England, France, and America come and exchange their cargoes for the products of South Asia, the Archipelago, and China. **Malacca** is a British colony, and extends for about forty miles

along the western shore of the Malay Peninsula, with an average breadth of about twenty-five miles. The soil is fertile and the climate healthy. The town of *Malacca* is a convenient place of call for vessels wanting water and refreshments. The island of *Sumatra* has an area of nearly 150,000 square miles. The principal settlements belong to the Dutch. *Bencoolen*, on the south side of the island, was given up to them by the English in exchange for *Malacca*, (1825.)

Sailing through the Straits of *Malacca*, we come to *Penang*, or Prince of Wales' Island. The climate is very agreeable, and spices—especially nutmegs, mace, and cloves—are very abundant. Before the rise of *Singapore*, *Penang* had considerable trade. *Georgetown*, the capital of the settlement, is neat, clean, and well built. The small district on the adjacent mainland, called *Wellesley Province*, was purchased by the British in 1800. We may here remark that the attention of the English Government has been directed to the feasibility of cutting a canal through the isthmus of *Kraw*; by this means the voyage from *Calcutta* to *Canton* would be shortened by above 1000 miles. The distance across the isthmus is about fifty miles; and by making use of a navigable river, a few miles only of canalisation would be required. We now proceed up the Gulf of *Martaban*, leaving the *Andaman Isles* to our left. The *Tenasserim Provinces* is the name given to a narrow strip of country extending along the eastern coast of the Gulf of *Martaban*. This district, which belongs to Britain, is separated from the kingdom of *Siam* by a range of mountains with an average elevation of 3000 feet. The climate is considered by Europeans the most salubrious of all known tropical countries, and the soil abounds in iron, tin, gold, silver, and copper. We obtained this district in 1826. The chief towns are *Moulmein*, *Amherst*, and *Mergui*. At the head of the gulf is the Province of *Pegu*, annexed to the British empire in 1853. The soil is very fertile, and is rich in minerals and precious stones. The chief towns are *Pegu* and *Rangoon*. Now doubling *Cape Negrais*, we come to *Aracan*, another British settlement. This province extends along the shore, and is

separated from the valley of the Irrawady by a range of mountains with an average elevation of 4000 feet. The district is well watered, and produces rice in abundance, large quantities of which are exported. It also exports salt. The chief towns are *Aracan*, *Akyab*, *Sandoway*, and *Kyauk Phyoo*.

We next arrive at the delta formed by the Ganges and Brahmapootra. The Delta of the Ganges is the size of Wales. It begins to be formed 200 miles from the sea. The district is called the **Sunderbunds**; it is intersected by streams, and covered with forests and jungle, which afford shelter to numerous wild beasts. The district is very unhealthy. The Ganges brings down 700,000 cubic feet of mud every hour. On the Hooghly, one of the branches of this river, stands *Calcutta*, the capital of British India. The river here is about a mile in width, and crowded with shipping. In the beginning of the last century, *Calcutta* was a paltry village. It was taken by Clive in 1757, since which time it has risen to its present importance.

Following the direction of the coast, and passing the mouth of the Mahanuddy, we come to *Juggernaut*, famed for its idol-car and the crowds of pilgrims. Continuing our course, we pass the mouths of the Godavery and Kistnah, with the town of *Masulipatam* between them, and come to *Madras*. *Madras* has no harbour, and ships anchor in the open roads. In consequence of this, it has less foreign trade than either *Calcutta* or *Bombay*. Here was the first British settlement in 1639. Now passing *Pondicherry* and *Tranquebar*, we come to *Ceylon*. This island has an area of 25,000 miles, and has been in our possession since 1815. The mountain called Adam's Peak, situated upon it, is about 7000 feet high, and is much resorted to by pilgrims to see the pretended impression of Buddha's foot in the rock. The capital of *Ceylon* is *Colombo*. A telegraph has been laid across the channel of *Manaar*, and *Ceylon* is now in communication with *Madras*, *Calcutta*, *Bombay*, *Kurra-
chee*, and *Peshawur*.

Now doubling *Cape Comorin*, and leaving the *Maldiv*
Islands to our left, we come to *Cochin*. This town is

built on the northern extremity of a tongue of land separated from the shore by a salt lagoon, called the "Back-water." Next to Bombay it is the best port on the Malabar coast, and under the Portuguese and Dutch, who formerly possessed it, Cochin was a flourishing town. Though its trade has declined, considerable quantities of teak, sandal-wood, pepper, and cocoa-nuts are yet exported. A little further north is *Calicut*. This town formerly carried on the manufacture of cotton goods to a large extent, and hence our term "calico;" but the manufacture has declined. It was here that Vasco de Gama landed in 1498; and he described it then as a place of great magnificence. Large quantities of pepper are produced in the neighbourhood.

Passing *Mangalore*, a considerable port, and *Goa*, which belongs to the Portuguese, we come to *Bombay*. This place, the name of which means good harbour, we obtained from the Portuguese in the reign of Charles II. It has steam communication with Suez. Near the island on which it is built is *Elephanta*, with its caves, temple, and idols cut in the solid rock.

Continuing north, we come to *Surat*, at the mouth of the Tapti. Surat had formerly considerable trade and manufactures; but its trade has declined before that of Bombay, and its manufactures have been superseded by those of England. Passing now the Gulf of Cambay, we come to the province of Cutch. The mariners of Cutch are a bold and hardy race, and carry on a trade with Africa and the Red Sea. To the north and east of the gulf is the **Runn of Cutch**, which, in the dry season, is a parched desert, covered with a saline crust, and numerous salt lakes, and inhabited by wild asses, apes, porcupines, and flocks of wild birds; but in the rainy season it is an extensive marsh, or lake, connected with the waters of the gulf. The principal port on this part of the coast is *Mandavee*.

We have now arrived at the Delta of the Indus. It has a rich soil, but is poorly cultivated. The navigation of the Indus is much impeded by bars and sand-banks, and the tides, which at full moon rise nine feet high, ebb and

flow with great violence. *Kurrachee* is the principal port here, and has considerable trade. It has been proposed to develop the resources of the valley of the Indus by means of the Punjab and Scinde railway. This railway will run from Kurrachee to Hyderabad; then a steam flotilla is to navigate the Indus as far as Moul-tan; there will next be rail as far as Lahore and Am-ritsir; and a branch could be extended to Peshawur, and thus command the trade of Central Asia. Kurrachee is connected to Alexandria by electric telegraph, by way of Suez, Aden, and Muscat.

There is now nothing of importance until we arrive at the Persian Gulf. The climate round the shores of this gulf is extremely hot. Owing to the number of small islands and coral reefs, navigation, especially along the coast of Arabia, is very hazardous; still, however, there is considerable trade connected with the gulf. *Bushire* is the chief entrepôt of the trade between Persia and India. It imports manufactured goods, indigo, sugar, pepper, and spices; and exports shawls, fruits, and bullion. A great trade is carried on with Shiraz by means of caravans. At the head of the gulf is *Bassorah*, on the Euphrates, which carries on a considerable trade with India. The chief imports are spices, muslins, silk, and indigo. In return for which it exports Arabian horses, precious metals, pearls, corals, rose-water, and dried fruits. Caravans also proceed regularly to Aleppo and Bagdad. On the west side of the gulf is a valuable pearl-fishery, which, during the season, employs 30,000 men, and yields pearls of the value of from £300,000 to £360,000 yearly. *Bahrein Island* is the centre of this fishery. Here also are springs of fresh water beneath the surface of the salt water; similar springs are found near Marseilles, and Goa, and off the coast of Cuba.

Repassing the Straits of Ormuz, we enter the Gulf of Oman, and arrive at *Muscat*. This is a place of considerable importance, being the key to the Persian Gulf. It is the chief emporium of trade between Persia, Arabia, and India. Most European vessels, bound for the gulf, touch here. Now rounding *Ras-al-had*, we pass the *Curia*

Muria Islands, which belong to England, and are noted for their produce of guano. There is nothing more of importance until we arrive at **Aden**. **Aden** has belonged to Britain since 1839. Steamers between Bombay and Suez call here. It is a depôt for coals, and has a garrison of British troops. Continuing west, we come to the Strait of **Bab-el-mandeb**, or gate of tears; so named because of the number of shipwrecks which have happened here. The strait is about twenty miles wide, and in the middle is situated the island of **Perim**. This island is now in the possession of Great Britain. It has an excellent port, which is well sheltered. As the Red Sea is becoming the great commercial road between Europe and Asia, this island, which effectually guards the entrance to the sea, is very important.

We now enter the Red Sea, so named either from Edom, (red,) which was on its eastern shore, or from the abundance of coral found in it. Its water is singularly clear and transparent. The principal port is *Mocha*, which exports coffee, dates, and gum-arabic. *Jidda*, the port of Mecca, has considerable transit trade.

Passing *Yembo*, the port of Medina, we come to the peninsula of Sinai. The Red Sea here divides, and forms the Gulfs of Suez and Akaba. *Suez* belongs to Egypt, and is a station in the overland route to India. *Akaba* is a small fortress, and serves as a station to the pilgrim-caravans going to Mecca.

3.—WESTERN COAST OF ASIA.

Crossing the desert from Suez, we arrive at *El-Arish*, taken by the French in 1799, and passing *Gaza*, come to *Jaffa*, the ancient Joppa, where Napoleon disgraced himself by massacring his prisoners and poisoning his troops.

Further north is *Kisarieh*, or Cæsarea, now a mass of ruins; and then we come to the once famous *Acre*, which was besieged by the crusaders in 1191, by Napoleon in 1799, and bombarded by Napier in 1840. Continuing north, we come to *Beirout*, the port of Damascus. This is con-

sidered the healthiest town on the coast of Syria, and has some manufactures of silk and cotton. The ports we have already mentioned, as well as those of *Tripoli* and *Latakia*, are almost choked up with sand. We may here remark that there is now before the public a project for constructing a railway down the valley of the Euphrates. The proposed line is to commence at a small port about three miles south of the mouth of the Orontes, and then, having passed Antioch and Aleppo, it will reach the Euphrates at Jaber Castle. It will then turn to the south-east, and having called at Anah and Bagdad, will arrive at Bassorah.

Scanderoon, on *Iskenderoon*, the port of Aleppo, is a wretched place, but possesses a good harbour. Turning to our left, and passing **Cyprus** on the one hand, and *Tarsus* on the other, we come to the Gulf of Adalia. Next, passing Rhodes, famous for its Colossus; Samos, the most productive island of the Archipelago; and Scio, which has been termed "the Paradise of modern Greece," we come to *Smyrna*. This is a place of great trade, being the principal port in the Levant; it has also communication, by means of caravans, with Asia Minor, Syria, Bagdad, and Persia. It exports dried fruits, cotton, raw silk, goats' hair, wool, and skins.

There is no other place of importance until we arrive at *Scutari*. This place is considered to be a suburb of Constantinople, and is interesting to us through the Christian exertions of Miss Nightingale and her companions. Passing **Cape Baba**, we come to *Sinope*, where the Turks were massacred by the Russians in 1853. Continuing our course, we come to *Trebizond*, the natural emporium of all the countries to the south-east of the Black Sea. Since the treaty of Adrianople (1830) opened the Black Sea to European ships, its trade has considerably increased. At present a great route for carrying European goods into Central Asia is from Trebizond to Erzroum, and onwards to Tabriz, in the north of Persia. Sailing now to the north-east, we come to *Poti*, a small town and fortress at the mouth of the river Rion. We have now finished the coast of Asia.

COAST OF AFRICA.

I.—GENERAL CHARACTER.

THOUGH almost surrounded by water, the Isthmus of Suez being only seventy-five miles across, Africa has only one mile of coast to 750 of surface; thus Europe has almost four times the length of coast line in proportion to its size. This is owing to the unbroken character of the shores of Africa. It is a compact and solid mass, with few indentations, and no important peninsulas. Thus we find that the surrounding ocean has not much effect upon its climate; its waters do not penetrate into the land, and the mountain-chains running parallel to the shores prevent the moist sea-breezes from fertilising the interior; hence the extreme heat and dryness of the climate. We may also remark, that both the outward form and internal structure of this continent give it a character of monotony totally different from the character of Europe. Though inhabited by several different varieties of the human family, still there is nothing of that endless diversity of *national character* which characterises the people of Europe, and on which the progress of civilisation so much depends. All the nations of Africa are alike sunk in ignorance and barbarism.

The coasts of this country are generally low and unhealthy, except in the north and extreme south. With the exception of the Delta of the Nile, and the low tract between the Gulfs of Sidra and Cabes, the north coast is rocky and bold, and continues so as far south as Cape

Bojador. The coast then becomes low and sandy. The Guinea coast is exceedingly fertile, especially in cereals. The low plains of Benin and Biafra, with the Delta of the Niger, consist of swamps loaded with rank vegetation. From thence to Cape Negro, the shores continue low, and are clothed with grassy plains and gigantic forests. "The ground in many places, saturated with water, bears a tangled crop of mangroves and tall reeds, which even cover the shoals along the coast; hot pestilential vapours hang over them, never dissipated by a breeze." In Benguela, the plains are healthy and cultivated, but a barren sandy tract then stretches as far south as the Orange river. The coast now becomes rugged and bold, and continues so round the Cape. The east coast of Africa is not so hot as the west coast, but is more fertile, since it is cooled and fertilised by the Trade Winds. With the exception of a sandy tract near the southern extremity of the Lupata Mountains, the whole coast from Natal to Magadoxa is adorned with verdant plains, forests, groves of palms, and different kinds of grain; though some tracts are marshy, and covered with mangroves. From about four degrees north to Cape Guardfui, the coast is a desert. The shores of the Red Sea are rocky, and in some parts fertile, but the inhabitants are an idle race, sunk in misery and wretchedness.

II.—PARTICULARS.

1.—NORTH COAST OF AFRICA.

Commencing with Egypt, we have the Delta of the Nile. This river empties itself by two mouths, that of *Damietta* on the east, and *Rosetta* on the west. The space between is the Delta, and it begins to form about 100 miles from the sea. The district of the Delta is very fertile. *Damietta* is the third town in Egypt: there are large rice-fields in the neighbourhood. In the sixth crusade, *Damietta* was taken by Louis IX., King of France. *Rosetta* is a neat town, but much decayed. Between *Rosetta* and

Alexandria is Aboukir Bay, celebrated for Nelson's victory, (1798.) *Alexandria* is the chief port in Egypt. It was once distinguished for its commerce and learning; but when conquered by the Saracens, it commenced to decline, and it was ruined by the discovery of the passage to India round the Cape.

Alexandria is one of the stations on the OVERLAND ROUTE to India. The first station is Gibraltar, whence the steamer proceeds to Malta. Sometimes, however, the traveller proceeds through France to Marseilles, and thus avoids the long passage round by Gibraltar. There is even a third route sometimes taken, which proceeds through Vienna to Trieste. From Valetta in Malta, or Trieste, a steamer proceeds to Alexandria, where there is a railway up the valley of the Nile to Cairo. Another line of rail runs across the desert from Cairo to Suez; and the route by the steam-packet is then resumed. Proceeding down the Red Sea, the steamer takes in a fresh supply of coals at Aden, and then continues the route to Bombay. The total distance round by Gibraltar is above 7000 miles, and the journey takes about forty days.

The states from Egypt to the Atlantic are called the States of Barbary, and include Tripoli, Tunis, Algiers, and Morocco. Tripoli comprises also Barca and Fezzan. The states were once inhabited by a highly civilised people, and ruins of vast cities yet remain. Indeed, this district seems to belong more to Europe than to Africa. The conquest of these states by the Turks, four hundred years since, has had a blighting effect upon their prosperity.

Leaving Alexandria, and continuing west, we come to *Greenah*, the ancient Cyrene; there are here the remains of a magnificent necropolis. Entering the shallow Gulf of Sidra, and continuing north-west, we come to *Tripoli*. This city has considerable trade with the interior of the country. There are some remains of antiquity, especially a triumphal arch.

Now passing the Gulf of Cades, and rounding **Cape Bon**, we come to *Tunis*. This is the largest and most commercial city in Barbary, and has a population of 100,000, of whom 40,000 are Jews. It carries on con-

siderable manufactures of silk and woollen goods, leather, earthenware, and soap. About thirteen miles to the north-east are the ruins of ancient *Carthage*. Tunis was captured by Charles V. in 1535, when 20,000 Christian slaves were liberated. We next come to *Bona*, noted for its coral-fishery. Further to the west is *Algiers*, which belongs to France. It was formerly noted for its piracies, and in 1816 the town was bombarded by Lord Exmouth, who destroyed the fleet in the harbour, and compelled the dey to release his Christian captives. In 1830 the whole province was conquered by France. Continuing our course and passing *Oran* we arrive at *Tetuan*. The trade is considerable, chiefly through Fez, from which it receives the goods brought by several caravans from various parts of northern Africa. *Ceuta* belongs to Spain, and is used for the confinement of criminals. A little further to the west is *Tangier*. This place belonged to England in the time of Charles II., but it was not considered worth retaining.

2.—WEST COAST OF AFRICA.

The coast now curves round to the Gulf of Guinea. Passing Cape Cantin, we come to *Mogadore*, the chief port in Morocco. To the right we have the **Madeira** Islands, so named from the quantity of timber found upon them. The climate is delightful: much wine is produced. To the south of this group are the **Canary** Islands, including Ferro and Teneriffe. The peak of Teneriffe is 12,000 feet high. The former group belongs to Portugal, the latter to Spain.

Now passing **Capes Bojador** and **Blanco** we come to the mouth of the Senegal. *Fort Louis*, near the mouth of this river, belongs to the French, who also possess some other settlements in the neighbourhood. Passing **Cape Verd**, which derives its name from the greenish tinge given to the sea by the abundance of sea-weed in this place, and *Goree*, which belongs to the French, we arrive at the English settlement of *Bathurst*, at the mouth of the Gambia. A little further south is *Bissao*, a Portuguese

possession ; and then passing **Sierra Leone**, we come to *Monrovia*, the capital of Liberia. This republic was established in 1829, as a place to which freed negroes might resort.

Leaving *Monrovia*, and rounding **Cape Palmas**, we reach the coast of Guinea. The chief British settlement here is *Cape Coast Castle*, to the west of which is *El-Mina*, a fortress belonging to the Dutch. *Badagry* was once a port of considerable trade ; but *Lagos*, which has recently been seized by the English, is of more importance. Passing the Delta of the Niger, we come to the well-wooded island of *Fernando Po*, which belongs to Spain.

Leaving the Bight of Biafra, and rounding **Cape Lopez**, we come to *Loango*, the chief city in the state of that name. *Loango*, *Congo*, *Angola*, and *Benguela* are all fertile tracts of country, inhabited by negro tribes, who are sunk in the lowest barbarism. Portugal is the only European power which has established any settlements in this part of Africa, and *Loando* is the capital of the Portuguese possessions in this quarter. Both *Loando* and *Benguela* carry on some trade with *Lisbon*, the chief exports being palm-oil and ivory. Formerly these places were notorious centres of the slave trade, and the traffic is still carried on. Now passing **Cape Negro** and *Cape Frio*, the coast trends south-west to *Walvisch Bay*, and becomes bold and rocky. Between this point and the mouth of the Orange river, the only place of importance is **Angra Pequena Bay**, in the neighbourhood of which are abundant deposits of nitrate of potash and soda.

The British portion of South Africa lies to the south of the Orange river, and embraces *Cape Colony*, *British Kaffraria*, and *Natal*. The **Cape of Good Hope**, from which the colony takes its name, was discovered by *Bartholomew Diaz*, a Portuguese, in 1486 ; and was first doubled by *Vasco de Gama*, another Portuguese, about ten years later. In 1650 the Dutch established the *Cape Colony*, but it was captured by the English early in the present century. *Cape Town*, the capital, stands on the south side of *Table Bay*, and is a well-built town, with a population of about 25,000.

Cape Agulhas—or needles—is a bold headland forming the most southern extremity of Africa. Off the coast is an extensive sand-bank, extending 500 miles from east to west. This bank may be owing to the opposing currents which make the passage round the Cape so dangerous. The discovery of this passage to India had a great effect on the commerce of Europe; and, as we have before remarked, Venice, Alexandria, and other cities on the Mediterranean, suffered severely, as the trade with India was now directed into another channel.

It was Henry the navigator, fourth son of John I. of Portugal, who gave the first impulse to Portuguese discovery. In his youth he was distinguished, not less by his arms, than by his love of science. He longed to discover a passage to India round the western coast of Africa, and from time to time he sent out vessels on voyages of discovery. In one of these voyages the Madeiras were discovered, (1420.) Cape Non was, at this time, considered the limit put by God to man's enterprise. Some of Henry's vessels passed the Cape, and safely doubled Cape Bojador, (1433.) Next year a larger vessel was sent out, and explored the coast 120 miles further. In 1440 Cape Blanco was reached. The spirit of enterprise was now thoroughly aroused, Cape Verd was doubled, the Azores discovered, and at Henry's death (1463) Sierra Leone was known to Europe. John II. of Portugal pursued with zeal these discoveries, as did his successor Emanuel; and, in 1486, Bartholomew Diaz discovered the Cape of Good Hope. About ten years after his return, as we have already mentioned, an expedition was sent out under Vasco de Gama; he doubled the Cape, visited Calicut, and having thus discovered the passage to India, he returned in safety to Lisbon (September 1499.)

3.—EAST COAST OF AFRICA.

Cape Colony extends eastward to the Keiskamma, and the chief inlet on this part of the coast is Algoa Bay. *Port Elizabeth*, upon this inlet, is the principal place for shipping in the eastern part of the colony. **British**

Kaffraria lies between the Keiskamma and the Great Kei, and then as far as about the parallel of twenty degrees south, the coast belongs to independent Kaffraria. **Natal** has a coast line of 150 miles, the chief port being *D'Urban*. This port is about 1000 miles distant from Cape Town, with which it has regular steam communication. The colony of Natal was first established by Dutch settlers from the Cape, but England took possession of it in 1845.

The coast, from **Delagoa Bay** to Cape Delgado, is more or less under the influence of the Portuguese. **Cape Corrientes** is so named on account of the strong currents felt off the coast at the entrance to the Mozambique Channel. *Sofala* is supposed by some to represent the *Ophir* whence gold was brought by the ships of Solomon. *Quillimane*, at the mouth of the Zambesi, is a place of considerable trade, especially in slaves. *Mozambique*, the capital of the Portuguese possessions on this part of the coast, is not such an important place as it once was; it exports slaves, ivory, and gold-dust. **Madagascar** is one of the largest islands in the world. Its length, from Cape Amber to Cape St Mary, is about 1000 miles; and its area is about 200,000 square miles. The interior of the island is mountainous and healthy, but low plains lie round the coast. The country is well watered, the soil fertile, and the chief productions are rice, silk, cotton, and spices. Minerals of various kinds abound, cattle are plentiful, and the timber is valuable. The total population is about 5,000,000.

Zanguebar, extending from Cape Delgado to the equator, is under the influence of the Sultan of Muscat. The chief towns along this part of the coast, including *Quiloa*, Zanzibar, *Mombas*, and *Patta*, are all built upon islands of the same names. Zanzibar, the capital, and the residence of the sultan, stands about twenty-five miles from the mainland. The foreign trade, which is chiefly in the hands of British and American merchants, is very considerable. The population is about 30,000.

The country between Zanguebar and the Gulf of Aden belongs to the Somauli, a people divided into numerous tribes, some of which are pastoral, while others cultivate

the ground. Considerable trade is carried on both by Arab merchants and also by native merchants of India. The chief port on the east coast is *Magadoxa*. Leaving this place, and proceeding northward, we come to **Cape Gardafui**; and about 130 miles to the east is the rocky island of **Socotro**, which has an area of about 1200 square miles. The chief exports of the island are aloes, figs, dates, and the resin of the dragon's-blood tree. The island belongs to the Sultan of Muscat. Now entering the Gulf of Aden, we come to *Berbera*, a town in the Somauli country, and celebrated for its large fairs. Merchants come from Egypt, Persia, and India, and exchange their produce for ivory, gum, coffee, and cattle. The fair lasts from October to April. Now sailing along the rocky shore of the Red Sea, we come to *Massowah*, the chief port of Abyssinia, which stands upon an island. Further north is *Souakin*, the chief port of Nubia, and then there is nothing more until we reach *Cosseir*, the outpost of Kenneh. *Suez*, at the head of an arm of the Red Sea, has been already mentioned as being a station on the overland route to India. A French company is at present engaged in cutting a canal across the Isthmus of Suez; when this is completed, there will be water communication between the Red Sea and the Mediterranean.

COAST OF AMERICA.

I—GENERAL CHARACTER.

UNLIKE the Old World, the greatest extent of America is from north to south. It consists of two parts, similar to each other in form and internal structure. These parts are connected by an isthmus, which is only thirty miles across in its narrowest part. North America is more indented than South America, the former having a coast line of 24,500 miles in length,—the coast line of the latter is only 14,500; and in both, the eastern coast is more indented than the western.

Greenland is now supposed to be an island; its eastern coast is icebound and almost inaccessible; however, Captain Scoresby succeeded in exploring it in 1822. The climate here is more severe than on the west coast. The whole shores are much indented, and on the west rugged cliffs rise perpendicularly from the sea. The shores of Baffin's Bay are steep and rocky. Hudson's Bay contains many shoals and reefs near the shores. The large inland seas in this part of the continent are of little importance to commerce, as few inhabitants dwell on their shores, and they are covered with ice during the greater part of the year. However, their fisheries are very important, and large quantities of drift-wood, brought by the various currents, supply the people of these barren lands with timber. As the tidal current travels west, the tides on this part of the American coast are very high. In the Bay of Fundy they have a rise of seventy feet, which is the highest known.

The coast of the United States affords great facilities for commerce, as there are many good harbours. The shores are in general low, and extensive swamps line the coast in several parts. The shores of the Gulf of Mexico are also low, and skirted with flat sandy islands. The southern shores of the Caribbean Sea are rather high and rocky. The Gulf of Mexico and the Caribbean Sea have been together termed the Columbian Mediterranean; the climate here is very hot, and the yellow fever prevails along the shores.

The east coast of South America is in general low. Brazil has splendid commercial advantages, for, besides its noble rivers, it has a coast line 4000 miles in length, indented with some fine harbours. The harbours on the east coast of Patagonia are bad, being difficult of access, and, when gained, are not secure. Its western shores are very abrupt, broken, and skirted with rocky islands.

In Chili, and indeed on the whole western coast of South America, the shores are steep and rocky. The coast of Peru is rugged and lofty. In the northern provinces, some tracts of loose sand occasionally intervene between the shores and the ocean, but in general the cliffs approach close to the water's edge. There are few good harbours here, as the constant swell of the Pacific causes a dangerous surf. The climate of Chili and Peru is greatly modified by a current from the south, which washes these shores. Off the coast of Lima, this current is twenty degrees cooler than the neighbouring sea.

From Payta to the Bay of Panama, the coast is clothed with a damp, luxuriant vegetation. The coast of Guatemala is steep, and possesses some good harbours. In Mexico the shores are low, hot, and unhealthy, and, owing to the prevalence of strong gales, navigation is extremely dangerous. California and Oregon have some good harbours. The remaining portion of this coast is rocky and much indented, well watered, and skirted with numerous islands. Owing to the prevalence of the warm south-west wind, the western coast of North America is warmer than the eastern coast.

The shores of the Arctic Ocean, as far as the mouth of the

Mackenzie, are low, flat, and often swampy. The remainder of the north coast has scarcely yet been explored.

II.—PARTICULARS.

1.—FROM GREENLAND TO THE BAY OF FUNDY.

The total area of Greenland is not known. It was discovered by the Norwegians A.D. 981, and colonised soon afterwards. A great fiord in the sixty-eighth parallel is supposed to extend across the entire country, but it is inaccessible, being blocked up with ice. There are some Danish settlements on the west coast. *Uppernavik* is the most northern permanent settlement in the world. The large black whale abounds in Baffin's Bay and the adjacent channels.

Now entering **Lancaster Sound**, and skirting the shores of North Devon, we come to Beechey Island, where Franklin wintered in 1845-6. Leaving this place, and following the track of Franklin's last voyage, we turn to our right up Wellington Channel; then turning again to the south, we pass through a narrow channel between Bathurst and Cornwallis Islands, and enter Barrow Strait. Still keeping south, we enter Peel Sound, with North Somerset on the one hand, and Prince of Wales Land on the other. Continuing our course, passing Victoria Strait, leaving Lady Franklin Channel to our right, and Boothia Felix to our left, we come to **Cape Felix**, the most northern point of King William Land. Near this point Franklin's ships were beset with ice, Sept. 1846, and eighteen months later the vessels were abandoned. We now skirt along the western and southern shores of King William Land, so interesting from the relics of the Franklin expedition found here, and passing through Simpson Strait,—the channel which divides King William Land from the continent,—we come to the mouth of the Great Fish River. Now turning to the north-west, we again arrive at Cape Felix.

We may here remark that the *real* north-west passage is down the east side of King William Land, through Simpson Strait, and then away to the west; and of this

passage Franklin may be said to have been the discoverer. Unfortunately he was not aware of the existence of Simpson Strait; and therefore, in endeavouring to push south from Cape Felix, was exposed to the ice-stream that constantly pours down Lady Franklin Channel. This ice-stream is checked by King William Land, and therefore the channel to the east of this island is comparatively sheltered.

Now again commencing at Cape Felix, we sail north; and then passing through **Bellot Strait**, between Boothia Felix and North Somerset, we enter the Gulf of Boothia. Leaving this gulf, passing Cockburn Land, and turning south through Fox Channel, we come to Hudson's Bay. Continuing our course, and leaving Chesterfield Inlet to our right, we come to *Fort York*. This place is situated at the mouth of the Nelson, and is the principal trading station of the Hudson's Bay Company. This company was established in the reign of Charles II. for the purpose of trading in furs, which are obtained from the Indians in exchange for guns, powder, spirits, and other articles.

Leaving James's Bay, passing Hudson's Strait, and rounding **Cape Chudleigh**, we come to *Nain*, a Moravian settlement on the coast of Labrador. This country was discovered by John Cabot, (1497,) but received its name from Corte Real, who visited it in 1501. The Labrador fishery is now very important; its principal seat is off the south-east coast.

The island of **Newfoundland** was also discovered by Cabot, who gave it its present name. The cod-fishery here is, perhaps, the most important in the world; about 6000 vessels of different sizes are engaged in it. *St John's*, the capital of Newfoundland, is the centre of the fishery.

Now sailing through the strait of Belle Isle, and passing the island of Anticosti, on which two lighthouses are built, we enter the mouth of the St Lawrence. This river has been contrasted, in many points, with the Mississippi. The former has almost a uniform quantity of water throughout the year; its basin contains some large lakes, its waters are clear and transparent, its banks rocky, and it empties itself through a wide estuary. The Mississippi, on the contrary, is constantly rising and falling; it drains

no lake, but has numerous feeders; its waters are turbid, its banks low, and, instead of an estuary, it forms a delta at its mouth.

Below Quebec masses of ice render the St Lawrence navigable only half the year; and between Quebec and Montreal it is frozen from December to April. *Quebec* has been termed the Gibraltar of America: it is famous for the victory gained by Wolfe, (1759.) The shores of the Gulf of St Lawrence are generally barren and precipitous: a strong current through the strait of Belle Isle meeting the stream from the estuary makes the navigation here rather dangerous. **Prince Edward's Island** is low and fertile, and has an area of about 2000 miles. The chief town, *Charlotte Town*, has a population of 2000. **Cape Breton Island** is about 1000 miles larger, and is hilly, foggy, and rich in minerals. **Nova Scotia** has an area of 15,000 miles, and resembles Cape Breton in climate and productions; the fisheries of both are important. The chief town is *Halifax*; it has a fine harbour, and is the principal station for the British navy in America. Now rounding Cape Sable, and entering the Bay of Fundy, we come to *St John*, the largest town in **New Brunswick**, and the centre of its trade.

2.—COAST OF THE UNITED STATES.

Portland, in Maine, is a flourishing place, with great trade and fisheries. Proceeding southwards, we come to *Boston*. This city has an excellent harbour, and its trade is next to that of New York. The exports are principally fish, salted meat, flour, and ice. The ice trade has rapidly increased of late years, and extends to South America, the East Indies, and China; above 80,000 tons are annually exported. Boston is the birthplace of Franklin, (1706.) *Plymouth* was the first permanent English settlement in America; it was founded by the Puritans, (1620.)

Now rounding **Cape Cod**, and passing Long Island, we come to *New York*, at the mouth of the Hudson. This is the largest city in America, and the second commercial city in the world. Its harbour is excellent, and the river

is navigable more than 100 miles above the city. By means of numerous canals and railways, New York has communication with the Northern States, and with Upper Canada, and is thus the outlet of a flourishing and populous extent of country. The imports, which consist of manufactured goods, silk, wine, tea, coffee, sugar, and spices, amount to about one-third the total value of the entire imports into the United States. The exports consist principally of different sorts of grain, beef, pork, dried fish, furs, and tobacco. New York was founded by the Dutch, and called New Amsterdam: it received its present name from the Duke of York, afterwards James II. *Brooklyn*, on Long Island, is considered a suburb; here the Americans were defeated in 1776.

Turning southwards, we round **Cape May**, and enter Delaware Bay. A fine breakwater has been constructed at the entrance to this inlet. At the head of this bay is *Philadelphia*, the fourth port in America. This city contains some handsome buildings; the streets cross each other at right angles, and are generally shaded with trees. Philadelphia has manufactories of cotton, paper, glass, and shot. It has a considerable coasting trade, and supplies Boston, New York, Baltimore, and other places, with manufactured goods, flour, and provisions. Here the Declaration of Independence was published in 1776.

Continuing our course, we come to Chesapeake Bay. This inlet is 180 miles long, and from ten to twenty-five broad. Its water is deep and its shores indented, thus affording some good harbours. At the head of the bay stands *Baltimore*, on the Susquehannah; it is perhaps the third port in the States, and exports large quantities of flour and tobacco. *Washington*, on the Potomac, is the capital of the Federal States; it has a population of about 50,000. James River is another stream which falls into Chesapeake Bay, and on it stands *Richmond*, the present capital of the Confederate States. At the mouth of the bay is *Norfolk*, a naval station. South-west of this is the "Dismal Swamp," covering an area of 150,000 acres.

The two Carolinas and Georgia are celebrated for the production of cotton. They have a low, sandy, or marshy

coast; swamps sometimes extending 100 miles inland. The shore is skirted with low sandy islands, which produce the sea-island cotton, the finest in the world. The yellow fever is very prevalent. The Carolinas were named after Charles II.: Georgia after George II. North Carolina has no good harbour. *Charleston* has become famous for the long siege it has withstood, (1863-5.) *Savannah* has also considerable trade. The peninsula of Florida is mostly low and sandy. There are, however, large forests and plantations of cotton, sugar, and indigo. It was discovered in 1512 by Ponce de Leon. This officer, while stationed at Porto Rico, heard of a wonderful fountain, whose waters could restore the freshness of youth to decrepit age. He at once set out in search of this treasure. He explored the northern coast of this gulf, and bathed in every pool he met with, but without success. In the course of his search, he discovered this peninsula on Palm Sunday, or Pasqua Florida,—hence its name. Owing to the numerous currents, banks, and coral reefs, navigation is here very dangerous.

Doubling *Cape Sable*, and turning to the north-west, we come to *Mobile*, important for the export of cotton. Turning now to the west, we arrive at the delta of the Mississippi. This delta is a low, unhealthy swamp, a great part of which is covered with reeds, which afford shelter to alligators. *New Orleans* is the great emporium for the produce of the Western States, and exports cotton, flour, and tobacco. The situation, however, is very unhealthy, and merchants leave the town in summer.

Texas was formerly a province of Mexico, but declared itself independent in 1835, and ten years afterwards it was admitted into the American Union. The soil is, in general, fertile, and the climate is hot. Its position gives it great commercial advantages; however, its resources are as yet undeveloped. The coast is lined with long narrow islands, which form large bays and lagoons, the principal of which is Galveston Bay. *Galveston* is the principal port, and has a population of about 4000.

3.—FROM THE MOUTH OF THE RIO GRANDE TO THAT OF THE AMAZON.

On the east coast of Mexico there is not a single good harbour, and the climate is very unhealthy. Leaving *Matamoras*, near the mouth of the Rio Grande, we come to *Tampico*, the chief place in Mexico for the export of mineral produce. *Vera Cruz*, further south, is, however, a more important place, and is the outlet for the agricultural produce of Mexico. Here Cortez landed in 1519. The peninsula of Yucatan has several times declared itself independent, but seems at present to belong to Mexico. It is, for the most part, flat and sandy, but there are some tracts of great fertility. *Campeachy* is the great seat of the logwood trade. *Merida* is the capital of Yucatan.

Now passing round **Cape Catoche**, which terminates the peninsula towards the north, we turn southward, and arrive at *Belize*, which belongs to Britain. The climate here is very healthy. The coasts are skirted with coral rocks, on which cocoa-nuts are produced in abundance, and the shores supply a great number of turtle. The principal town is *Belize*, situated amid groves of cocoa-nuts and tamarind-trees. The houses are of wood. The principal exports are logwood, cochineal, and cedar.

The term Central America includes the five states of Guatemala, San Salvador, Nicaragua, Costa Rica, and Honduras. These states were originally under the government of Spain, but in 1823 they established their independence, and formed a Federal Republic. But since 1839 this union has been dissolved, and each state is now an independent republic. Guatemala is the most flourishing.

The eastern part of the coast of Honduras and Nicaragua has been called the Mosquito coast. It professes to be an independent state inhabited by Indians, but it has recently been annexed to Nicaragua. Abundant timber is found at many places, and the shores produce tortoise-shell of the best quality. The chief town on this part of the coast is *San Juan de Nicaragua* or *Grey Town*.

Leaving Grey Town, and skirting the shores of the Mosquito Gulf, we arrive at *Chagres*, a place of considerable

trade. From its low and damp situation the town is very unhealthy; and rain is almost constant. About three miles to the north-east is Navy Bay, now generally known as *Aspinwall*: from this place a railway has been constructed across the isthmus, terminating at Panama. Continuing our course we come to *Porto Bello*, which, as its name implies, has a good harbour. It once possessed considerable trade, and was taken by Admiral Vernon in 1739. Since that time it has decayed. The climate is very unhealthy. Passing the Gulf of Darien, we come to *Cartagena*, the principal seaport of New Granada, and the chief naval arsenal.

Now passing the Gulf of Venezuela, and the Peninsula of Paraguana, we come to *Caracas*, the capital of Venezuela. This town is situated 3000 feet above the level of the sea, and is well and regularly built. The climate is healthy, but earthquakes are common; that of 1812 destroyed nearly all the houses, with 10,000 of the inhabitants. The province of Caracas produces excellent cocoa, as well as coffee and indigo. Now passing *Barcelona*, we come to *Cumana* with its fine harbour. This is the oldest European city in America, having been built in 1523. Continuing our course, we pass the fertile island of **Trinidad**, which belongs to England, and the mouths of the Orinoco, and arrive at Guiana. **British Guiana** formerly belonged to Holland. We seized it during the wars with Napoleon, and it was confirmed to us by treaty. The capital is *Georgetown*. Now passing *Parimaribo*, the capital of Dutch Guiana, we come to *Cayenne*. Near Cayenne is *Sinnamary*, which during the French Revolution was used as a place of transportation for political offenders.

4.—FROM THE MOUTH OF THE AMAZON TO CAPE HORN.

The coast of Brazil was discovered by a Spaniard in 1500. In the same year Cabral, a Portuguese admiral, in a voyage to the East Indies, was driven on the coast. He immediately took possession of the country for the

crown of Portugal, by erecting a cross, and called the country *Tierra de Santa Cruz*, or Land of the Holy Cross. Amerigo Vespucci was then sent out by the King of Portugal to explore the country. He made two voyages, and brought back to Europe cargoes of red wood. It was from the abundance of this wood—called by the Portuguese, brazil wood—that the country derived its present name. It was afterwards a Portuguese colony, but since 1820 it has been independent, and is governed by a limited monarchy.

The mouth of the Amazon is about 180 miles in width, and has the well-wooded island of Caviana in the centre. Another large island—Joannes or Marajo—separates the estuary of the Amazon from Rio Para. Para itself is situated in the middle of a fertile plain, and is one of the best built cities in Brazil; the principal articles of export are cocoa and caoutchouc. Now following the direction of the coast, we come to *Maranhao*, another important place; it exports rice, cotton, and hides. Continuing our course and rounding **Cape St Roque**, we pass *Parahyba*, which exports large quantities of brazil wood, and arrive at *Bahia* or *San Salvador*. The harbour is one of the best in America, and is suitable for vessels of every size. The trade, though not so important as it once was, is still considerable; the chief exports are sugar, cotton, tobacco, and rum. After leaving Bahia, and passing *Porto Seguro*, where Cabral landed, we next reach Rio de Janeiro. Rio, as this place is commonly called, has one of the finest harbours in the world. It is the largest city in South America, and very healthy. The principal export is coffee. Hither fled the Royal Family of Portugal in 1807.

There is now nothing of further importance until we arrive at the mouth of the La Plata. This estuary is about 180 miles in length, and its breadth at the mouth is 130 miles. The coast on the north side is rocky, on the south low, extending inwards in immense pampas. Owing to the variability of the winds and currents, navigation is very difficult. *Monte Video*, the capital of Uruguay, or Banda Oriental, has considerable trade, exporting hides,

horns, and beef. The state of Uruguay long formed debatable ground between Brazil and La Plata; but by a treaty of 1828 it was declared independent. Further up the estuary, and on the opposite shore, is *Buenos Ayres*, the capital of the republic of La Plata. It has great trade, but the harbour is bad. To the west are the pampas, swarming with cattle, and hence the principal exports are beef, hides, skins, tallow, and wool. The country formerly belonged to Spain, but gained its independence in 1816.

Leaving the La Plata, and continuing south, we arrive at the strait of Magellan, leaving **Falkland Islands** to our left. These islands were discovered by Davis in 1592; and have been occupied by England since 1833. There are some good harbours, and plenty of live stock and fresh water. **Magellan's Strait** was discovered in 1520. It is about 300 miles long, and the breadth varies from one to forty miles. The shores are rugged, and the water deep; but the passage is extremely dangerous, owing to violent currents.

The group of islands called *Tierra del Fuego*, or Land of Fire, are, as their name implies, volcanic. Many parts appear to be well wooded. The inhabitants appear to be in the lowest stage of barbarism.

5.—WEST COAST OF AMERICA.

The western coast of Patagonia is skirted by a chain of rocky islands, the inhabitants of which are chiefly engaged in the whale and seal-fisheries. Wellington Island is the largest. Chiloe, belonging to Chili, is a fertile island, with abundance of cattle. Now continuing our course along the coast of Chili, we come to *Conception*, once an important place, but destroyed by an earthquake in 1835; it now consists of a few rectangular streets of low brick-built houses. Still further to the north we have *Valparaiso*, a flourishing town with a good harbour. It is the central depôt for the trade of Chili, exporting wheat, tallow, hides, wool, and metals. *Coquimbo*, another port of Chili, exports mineral produce, especially copper.

Proceeding northwards, the next place of importance is

Arica. This is the chief outlet for Bolivia, but it is not so considerable as it once was when it exported the produce of the celebrated mines of Potosi. Owing to the heavy swell of the surf upon this coast, all merchandise is shipped and landed by means of balsas, or floats of inflated skins. At the entrance to the roads of Arica lies the island of Guano, thickly covered with the manure of the same name. The coast now trends to the north-west, and we next arrive at *Lima*. This city, the capital of Peru, stands on the Rimac, about six miles from the coast. It was founded by Pizarro in 1535. Its port, *Callao*, at the mouth of the river, is the centre of an important and increasing trade. In 1746 this port was almost entirely destroyed by an earthquake, when the sea rushed upon the land and stranded four ships two miles from the shore. At low water, when the sea is clear, part of the old town may still be seen beneath the waters. To the south lie the *Chinca Islands*, famous for their deposits of guano. *Truxillo*, to the north of Lima, is a place of considerable trade. Now rounding *Cape Parina*, the most westerly point in South America, we reach *Payta*, attacked by Anson in 1741. The houses are constructed of a kind of basket-work, and thatched with leaves, for the sake of coolness. The port is a good one, and is frequented by vessels of all nations for cargoes, principally of cotton, bark, hides, and drugs.

Guayaquil, the chief port of Ecuador, lies at the head of a gulf of the same name. Its harbour is excellent, but the town is very unhealthy, owing to excessive heats and heavy rains. The principal exports are cocoa, timber, cattle, and tobacco. The next place of importance is *Panama*. Previously to 1740 this place was the principal entrepôt of trade between Europe and West America. But since the trade began to be carried round Cape Horn, it has decayed. Of late years, however, it has regained some importance, and its trade is increasing. It has been proposed to establish a mail service to Australia *via* Panama and New Zealand. If the project succeed, a monthly mail will no doubt be established between Panama and British Columbia.

Now continuing our course, and passing the town of *Leon* and the Bay of Fonseca, on which stands *La Union*, the chief port of San Salvador, we come to *Acapulco*. This harbour is one of the finest in the world—deep, and well sheltered ; but the climate is unhealthy. *Acapulco*, at one time, was an important place, and is often mentioned in the history of the Buccaneers. There is not much trade here at present. *Guaymas*, on the Gulf of California, has an excellent harbour, and increasing trade. There was once an important pearl-fishery in the Gulf of California, but its importance has declined. California itself formerly belonged to Mexico ; but it threw off the Mexican yoke in 1836. After this there was no settled government for some years, but in 1848 it was ceded to the United States. The port of *San Francisco*, on a noble bay, is rising rapidly into importance. California has now communication with the Mississippi by means of the great mail route recently opened. This route commences at *San Francisco*, and goes eastward to *Fort Smith* on the *Arkansas* ; it there splits into two branches, one of which terminates at *St Louis* ; the other at *Memphis*. The distance from *St Louis* to *Francisco* is about 3000 miles, and the journey is performed in twenty-five days.

Now passing *Cape Mendocino*, we come to **Vancouver's Island**. "The shores of Vancouver's Island present a constantly varied aspect, a new landscape opening out every mile you go, one differing in beauty from another only by some chance grouping of the trees or the appearance of some brook, either flowing between the pendant branches of the ferns, or falling in a shower of spray over some precipice. Flowers and shrubs enamel the bright green grass, forming a pretty contrast to the pure white sand which covers the beach." The island is about 300 miles long, with a breadth varying from forty to fifty miles. The climate is mild and humid, and there are coal, timber, game, and fish in abundance. *Fort Victoria* constitutes the seat of government. Gold having been found in great abundance at *Fraser River*, a great influx of emigrants from California and other places followed ; hence the British Government saw the necessity of protecting its

own subjects, and an Act was passed (1858) to form the whole district into a colony under the title of **British Columbia**. The colony has an area of about 225,000 square miles; the native population is estimated at 75,000. *New Westminster*, near the mouth of the Fraser, is designed as the capital. A railway connecting the Atlantic and Pacific has long been contemplated; and it is the opinion of eminent engineers that no part of the North American continent presents less difficulties in the way of this project than the tract of country between the great lakes and Vancouver's Island. Another commercial advantage possessed by Vancouver's Island is that it is the only place in this part of the Pacific coast where coal is found.

The channel between Vancouver's Island and the mainland is called the Gulf of Georgia. In this gulf are several islands, one of which—**San Juan**—has become known through the dispute between England and America as to its possession. The boundary line between the British territory and that of the United States passes southward through the Gulf of Georgia, all to the west belonging to Britain. As there are at least three channels between the various islands and the mainland it is not settled through which the boundary line must pass. If Haro Channel, between Vancouver's Island and the other islands, be fixed upon, then San Juan belongs to America. If, however, the Vancouver or Rosario Channel be the one referred to in the treaty, San Juan belongs to England. It is proposed to adopt a third channel between the two mentioned, and Britain will thus retain San Juan, America obtaining the other islands. The American coast of the Pacific north of fifty-four degrees, and the portion of the mainland west of the 141st meridian, belong to Russia. The shores are generally rocky and bold, but north and east of Behring Strait they are low, flat, and swampy. The discoveries of Franklin and Richardson, (1825-6,) and of Dease and Simpson, (1839,) prove that there is a well-defined coast running from the mouth of the Mackenzie to King William Land. And as there is communication by water from there to Lancaster

Sound, the problem of a north-western passage is at length solved.

Discovery of America.—Greenland is said to have been discovered by an Iclander about the beginning of the tenth century, and it seems probable that at least two centuries before the voyage of Columbus, the shores of North America had been discovered by Norwegian and Icelandic adventurers. However, the nations of southern Europe were ignorant of the existence of the New World before Columbus made it known to them. He reached San Salvador, one of the Bahama group, in 1492, and in a third voyage he came in sight of Trinidad, entered the Gulf of Paria, and arrived at the mouth of the Orinoco. He then explored the coast as far as Margarita. In a subsequent voyage he discovered Honduras, and, sailing along the coast, he reached the Gulf of Darien. He died in 1506.

In the meantime, John Cabot, a Venetian, who sailed under a patent granted by Henry VII., had discovered Newfoundland and Labrador, (1497;) and Pinçon, a Spaniard, being driven by a tempest, discovered the coast of Brazil, (1500.) He landed near Cape Augustin, and then coasted northwards as far as the mouth of the Amazon. Three months later, Cabral, a Portuguese, was driven on shore a little further south, as we have before mentioned. In 1499, Alonza de Ojeda fitted out an expedition of four ships, at his own expense, and explored the coast from Margarita to Cape Vela. He was accompanied by a Florentine, Amerigo Vespucci, who published an account of the voyage, and had the honour of conferring a name on the New World. Other adventurers explored the shores of the Gulf of Mexico; the Isthmus of Darien was crossed, and the Pacific discovered.

Turning now again to South America, we find that, in 1514, Juan Diaz de Solis was sent to sail round America, and reach the opposite side of the Isthmus of Darien. He surveyed the whole country of Brazil as far as the Rio de la Plata, but there, unfortunately, he was killed by the natives. Three years afterwards, Magellan, a Portuguese, offered his services to Charles V., and by him was

sent out to discover a westward passage to the Moluccas. He reached the southern extremity of South America, sailed through the straits which bear his name, crossed the Pacific, and reached the Philippines, where, having engaged in a contest with the natives, he was killed.

France now entered upon the field of discovery, and sent out an expedition under Verazzano, a Florentine navigator, (1524.) He explored all the coast from Carolina to Newfoundland, and gave the name of New France to the region thus discovered. Adventurers in search of gold now flocked to America. Mexico and Peru were overrun. California was discovered, (1536,) and the west coast of the New World traced as far north as the River Columbia.

Attempts were now made to discover a north-west passage to India, and the names Davis Strait, Hudson's Bay, and Baffin's Bay, show us the regions discovered by the navigators whose names they bear, (1585-1615.) Behring, the Russian navigator, and Captain Cook, endeavoured to discover a passage from the opposite coast of America, but without success. The former died on one of the Aleutian Islands, and Cook, having traced the coast from fifty degrees north to Cape Prince of Wales, turned north-east, but was at length arrested by a chain of ice islands. He named the place Icy Cape, and then returned.

In 1818, an expedition was fitted out by the British Government; the ships—the *Isabella* and *Alexander*—of which it consisted were put under the direction of Captain Ross, with Lieutenant Parry second in command. This expedition only proceeded as far as Lancaster Sound. In the following year, Lieutenant Parry, with two ships, renewed the attempt. He passed through Lancaster Sound and Barrow Strait, and proceeded westward as far as the meridian of 141 degrees. At the same time an overland expedition was sent out under Lieutenant (afterwards Sir John) Franklin, who, in company with Dr Richardson and Mr Back, went down the Coppermine River to its mouth and explored a large extent of coast to the eastward. A few years later, (1825,) a second overland expedition was sent out conducted by the same parties. The

adventurers passed down the Mackenzie, and then, dividing into two parties, explored the coast to the east and west of its mouth. The subsequent voyages of Captain Beechey, and of Dease and Simpson, completed the discovery of the north coast of America.

In 1845, the *Erebus* and *Terror*, under the Captains Fitzjames and Crozier, with Sir John Franklin chief in command, left the shores of England. Not one belonging to this expedition ever returned, and we learn from the traces discovered by Captain (now Sir Leopold) M'Clintock, that Franklin, having wintered at Beechey Island, had next year passed down Peel Sound as far as King William Land, and, endeavouring to reach the coast of North America, from whence he knew there was plain sailing to the west, his ships became beset in the ice, and he and his companions perished. Captain Maclure was more successful. He entered the Arctic Ocean by Behring's Strait and returned to England by Lancaster Sound, (1850-3.) He wintered the first year on the eastern shore of what he termed Baring Island; the two following winters were spent on its northern shores. Thence a party of the officers and crew crossed over to the furthest point of Parry's discoveries in 1819-20. And thus the identity of Baring Island with the Banks Land of Parry was determined, and a channel from the Pacific to the Atlantic discovered.

COAST OF AUSTRALIA.

I.—GENERAL CHARACTER.

It has been remarked that Australia bears a certain resemblance to Africa in its form and character. Neither of these continents is much indented, both have islands near their southern extremities, and both have large bends in their western sides. Very little is known of the interior of either of these continents, and the principal ranges of mountains in each seem to run parallel with the shores, and at no great distance from them.

Australia is square and compact in form ; it has about one mile of coast to 290 miles of surface. There are some good harbours round the shore, but upon the whole, as we have remarked, the indentations are not numerous. The east coast is rugged and rocky, as a ridge of steep mountains runs along a great portion of it, at a distance from the sea, varying from thirty to ninety miles. Off the north-east coast is the great barrier reef. It extends from Torres Strait, in a line south-east, for a distance of 1260 miles. Its mean distance from the east coast is thirty miles, though in some parts it is 100 miles off. This reef is entirely composed of coral. The channel, between the barrier and the mainland, though narrow, is deep and sheltered, and is the route usually taken by ships. There are a few openings in the barrier, affording passage for ships to the sea outside. This sea is studded with reefs and coral islets, and hence is called the Coral Sea.

The coast of South Australia forms a large curve, extending from Spencer Gulf to King George's Sound. The shores are generally flat, sandy, and barren, and occasionally skirted with low sand-hills. To the east, however, there are cliffs of sandstone rising to the height of 600 to 800 feet, and covered with wood. The coast is also fringed with numerous islands, the largest of which is Kangaroo Island. From King George's Sound round Cape Leeuwin, and northwards to Shark's Bay, the coast is, in general, rocky, and in some parts wooded. Thence to Cape Leveque it appears, from what is known, to be low and barren, and this character continues to the Gulf of Carpentaria.

It thus appears that, so far as is known at present, the best portions of Australia, both as regards the coast and interior, are in the east and south. The land is there best suited for agriculture, and the scenery most picturesque.

II.—PARTICULARS.

Leaving **Cape York**, and turning south, there is nothing of any importance until we arrive at Moreton Bay. This district promises to become an important agricultural settlement. In 1859, this district was formed into a colony under the title of **Queensland**. The soil is fertile, and the climate, though warmer than that of New South Wales, is healthy, and well adapted to the growth of cotton. The chief town, *Brisbane*, stands at the mouth of a river of that name, which flows into Moreton Bay. We now come to the coast of **New South Wales**. This colony extends inland to the 141st meridian, and is bounded on the north by Queensland, on the south by the colony of Victoria. Sheep-grazing is carried on to a great extent in this colony, and the chief exports are wool and tallow. Following the direction of the coast from Moreton Bay, we pass the thriving settlement of *Port Macquarie*, and come to *Newcastle*, with its coal mines. A little to the south is *Sydney*, on the south side of a fine bay called Port Jackson. This inlet forms one of the finest harbours in the world. It stretches about fifteen

miles into the land, and has numerous branches. The anchorage is excellent. Sydney itself is a pretty town, and has considerable trade. The chief exports at present are gold and wool.

Now passing *Botany Bay* and round Cape Howe, we arrive at the coast of **Victoria**. This is the most flourishing of the Australian colonies. As in the neighbouring colony, sheep-farming is carried on to a great extent, and about 25,000,000 lb. of wool are exported annually. But it is to the discovery of gold that Victoria principally owes its prosperity. Since their first discovery in 1851, the gold fields have yielded nearly £100,000,000. The total value of the exports from this colony is about £15,000,000, and the imports nearly equal the same amount. The capital of Victoria is *Melbourne*. It is situated on the Yarra Yarra, about nine miles from its mouth. The river unfortunately is shallow, and encumbered with sand-banks; but the basin of Port Philp, into which it flows, forms a spacious land-locked bay, extending thirty miles in each direction.

The channel between Victoria and Van Diemen's Land is called Bass's Strait. It is about 200 miles broad, but, owing to numerous islands and coral reefs, navigation is rather dangerous. The island of **Van Diemen's Land** or **Tasmania** has an area of about 24,000 square miles. The coasts are in many parts steep and rocky, and the interior of the country diversified and beautiful. The principal exports of the colony are wool and the produce of the whale-fishery. *Hobart Town*, the capital, stands upon the River Derwent, which empties itself into Storm Bay.

We now come to the shores of **South Australia**. This colony lies to the west of Victoria, and stretches into the interior as far as the twenty-sixth parallel. It is exceedingly productive of minerals, especially copper and lead. Agriculture has made considerable progress; and next to copper, the chief export is wheat. The colony carries on an extensive trade with Great Britain, the East Indies, the Mauritius, the Cape, and the United States.

Commencing now at Cape Northumberland, the coast stretches to the north-west. Following this direction,

passing *Port Elliot* at the entrance to Lake Alexandrina, and leaving Kangaroo Island to our left, we enter St Vincent's Gulf, and arrive at *Adelaide*, the capital of the colony. This town is built on both banks of the Torrens, about seven miles from the sea. To the east and south rise a semicircle of hills, and some of the principal copper and lead mines of the colony are in the neighbourhood. *Port Adelaide* lies towards the north-west: it is situated on an inlet branching from St Vincent's Gulf. *Adelaide* exports copper, and other native produce. Kangaroo Island, at the entrance of the gulf, contains about 100 inhabitants, who are chiefly engaged in fishing and hunting seals.

Now passing Spencer Gulf, there is nothing to detain us until we come to **West Australia**. This colony was established in 1829. The most flourishing part of the colony is the settlement on Swan River. *Freemantle*, at the entrance of the river, is the port, but *Perth*, the capital, is about nine miles inland. The principal trade of the colony is carried on with the Mauritius and Singapore; the chief exports are wool, sandal-wood, and timber for shipbuilding.

Continuing our course northward, we pass Dirk Hartog's Island and Shark's Bay, and come to the north-west cape; then turning north-east, and passing Cambridge Gulf and Clarence Strait, we come to Van Diemen's Gulf. This gulf is land-locked by the islands of Bathurst and Melville and the Coburg Peninsula. Both the islands mentioned are thickly wooded. The climate is tropical, but unhealthy. There is at present no government settlement in North Australia. The government station of *Port Essington*, on Coburg's Peninsula, was abandoned in 1849. Leaving Port Essington, and turning east, we arrive at the **Gulf of Carpentaria**. This is the largest inlet on the Australian coast. The shores are in general low. Torres Strait, which separates Australia from New Guinea, is about ninety miles wide. The coral reefs make navigation here very dangerous. We have thus finished the coast of Australia.

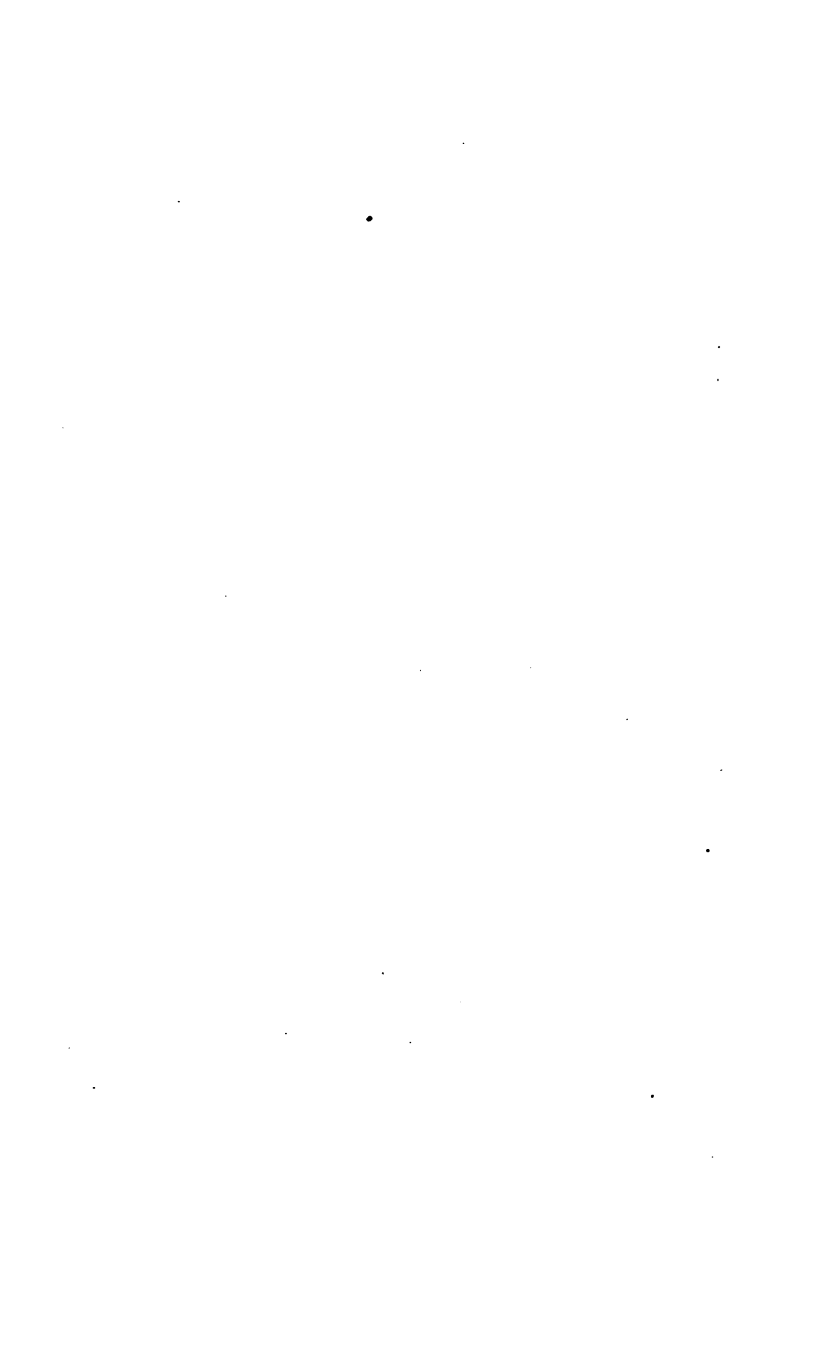
Discovery of Australia.—The first navigator who gave

any account of Australia was Torres, a Spaniard, who sailed through the channel which bears his name in 1606. For the next forty years the Dutch were the chief discoverers in these parts; and between 1642 and 1644, Tasman discovered a great portion of the Australian coast, together with the island of Van Diemen's Land. The island was named after Anthony Van Diemen, governor of the Dutch possession in the East Indies, but it is now generally called Tasmania.

Another interval of forty years, and the English enter upon the career of discovery. Between 1684 and 1690, Dampier explored a great part of the north and north-west coasts; and subsequently he extended his discoveries, and gave his name to the small archipelago lying to the east of the north-west cape.

In 1770, Captain Cook traced the whole eastern coast from Cape Howe to Cape York, and soon afterwards the colony of New South Wales was established. Towards the close of the last century, the channel which divides Van Diemen's Land from Australia was discovered by Mr Bass, a surgeon in the English navy. He, in company with Captain Flinders, afterwards surveyed a great portion of the southern coast; and, in the course of their discoveries, they met with a French vessel, and from this circumstance called the place of meeting Encounter Bay. Other navigators have, since that period, almost completed our knowledge of the Australian coast.

THE END.



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